

THIRTY-FIFTH ANNUAL REPORT

OF THE

Sanitary Commissioner for the
Government of Bombay,

1898

WITH

APPENDICES.



XII
1-2

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ANNUAL SANITARY REPORT FOR 1898.

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SECTION II.—EUROPEAN ARMY. No remarks.

SECTION III.—NATIVE ARMY. No remarks.

SECTION IV.—JAILS. No remarks.

SECTION V.

GENERAL POPULATION AND VITAL STATISTICS.

1. The principal sanitary defects in each Collectorate hitherto shown in Annual Form No. II are now omitted, but this information is shown in the new Annual Form No. XI, in accordance with the desire of the Government of India, as published in the Bombay Government Resolution, General Department, No. 1607, dated 17th March 1898.

2. The village birth and death registers were examined by the vaccination staff, and reports sent to the Deputy Sanitary Commissioners of the discrepancies discovered.

The number of omissions discovered by the staff of the Sanitary Department in 1898 was :—

		Births.	Deaths.
In Western Registration District	...	192	45
In Central do.	...	256	38
In Southern do.	...	505	65
In Gujarát do.	...	1,130	73
In Sind do.	...	711	...

These omissions were brought to the notice of the Revenue and Municipal authorities by the Deputy Sanitary Commissioners, and the defaulters were, as a rule, either fined or warned.

3. In the City of Bombay no prosecutions for failure to report the births of children were instituted.

It is very much to be desired that Municipalities would make more use of the powers conferred on them by law to obtain the more efficient registration of births and deaths.

4. The following statement shows the number of Municipal towns in which the registration of births and deaths is made compulsory :—

Collectorates.	Number of Municipal towns in which the registration of births and deaths is made compulsory.	Remarks.	Collectorates.	Number of Municipal towns in which the registration of births and deaths is made compulsory.	Remarks.
Khándesh ...	19	The Municipalities of Sásvad, Junnar and Indápur have framed rules and submitted them to Government.	Kánara ...	6	
Nasik ...	6		Surat ...	4	
Thána ...	7		Broach ...	5	
City of Bombay ...	1		Kaira ...	10	
Kolába ...	6		Panch Maháls ...	2	
Ahmednagar ...	4		Ahmedabad ...	11	
Poona ...	10		Karáchi ...	7	
Sholápur ...	5		Hyderabad ...	7	
Sátára ...	12		Thar and Párkar... ..	2	
Ratnágiri ...	5		Shikárpur ...	8	
Belgaum ...	7		Upper Sind Frontier ...	1	
Dhárwár ...	7				
Bijápur ...	4				
			Total ...	156	

European and Eurasian Vital Statistics.

5. The European civil census population of 1891 in the Bombay Presidency, exclusive of Cantonments in quasi-foreign territory, is 18,486. During the year 1898, 246 births and 243 deaths were recorded against 257 and 290 in 1897—a birth rate of 13·31 per mille against 13·90 in 1897 and a death-rate of 13·14 against 15·69. By sexes, 141 males and 105 females were born against 119 and 138 in 1897, and, as regards deaths, 145 males and 98 females died against 170 and 120 in 1897.

6. The Eurasian census population of 1891 is 8,519. During the year 1898 the births amounted to 123 against 134 in 1897 and the deaths to 169 against 240—the rates being 14·44 per mille against 15·73 in 1897 and 19·84 against 28·17. Of those born, 64 were males and 59 females against 72 and 62 in 1897; as regards deaths, 93 males and 76 females died against 123 and 117 in 1897.

7. A table is appended showing the European and Eurasian population in each Collectorate and the births and deaths for the year 1898 compared with the births and deaths in 1897, and another table following shows the deaths by causes and the ratios in 1898 compared with 1897:—

Districts.	No.	Collectorates.	EUROPEANS.				EURASIANS.					
			Popula- tion ac- cording to Census of 1891.	Number of Births.		Number of Deaths.		Popula- tion ac- cording to Census of 1891.	Number of Births.		Number of Deaths.	
				1898.	1897.	1898.	1897.		1898.	1897.	1898.	1897.
Western Regis- tration Dis- trict.	1	Khândesh	239	6	11	5	20	293	8	5	6	9
	2	Nâsik... ..	693	13	14	12	9	212	2	1	1	2
	3	Thâna	391	5	2	1	1	274	3	...	3	1
	4	City of Bombay ...	10,251	165	161	185	198	4,330	69	81	108	180
	5	Kolâba	39	...	...	...	1	2	...	...	...	...
Central Regis- tration Dis- trict.	6	Ahmednagar	332	...	4	1	3	36	...	1	...	...
	7	Poona... ..	1,993	16	24	16	30	948	3	12	12	20
	8	Sholâpur	270	8	7	5	3	164	8	5	1	11
	9	Satâra	207	4	9	1	8	60	...	...	...	...
	10	Ratnâgiri	46	...	...	...	...	18	...	...	...	...
Southern Regis- tration Dis- trict.	11	Belgaum	389	...	1	...	1	354	1	1	1	...
	12	Dhârwar	305	3	14	4	4	476	16	12	6	7
	13	Bijâpur	42	...	...	...	2	11	...	...	...	...
	14	Kânara	69	3	...	1	1	126	...	...	...	...
	15	Surat... ..	90	...	...	...	...	75	1	...	5	...
Gujarât Regis- tration Dis- trict.	16	Broach	31	...	...	...	...	9	...	...	1	...
	17	Kaira... ..	41	...	1	...	...	19	...	...	...	...
	18	Panch Mahâls ...	19	1	...	...	...	17	...	...	...	...
	19	Ahmedabad	338	4	1	4	6	142	...	1	...	...
	20	Karâchi	2,077	10	2	2	1	685	5	6	5	1
Sind Registra- tion District.	21	Hyderabad	129	...	...	...	...	41	...	...	...	...
	22	Thar and Pârkar ...	5	...	...	...	...	9	...	...	...	...
	23	Shikârpur	231	8	6	6	2	208	7	7	10	...
	24	Upper Sind Frontier.	69	...	...	...	...	10	...	2	...	...
			18,486	246	257	243	290	8,519	123	134	169	240
Cantonments in quasi-foreign territory.	1	Aden	Not obtainable.	...	...	...	...	Not obtainable.	...	...	...	...
	2	Baroda		...	...	...	...		...	...	...	...
	3	Bhûj		...	1	...	...		...	...	...	...
	4	Deesa... ..		3	3	2	2		1	2	2	2
	5	Mhow... ..		1	1	1	2		...	...	...	2
	6	Nasirabad		...	1	...	1		...	...	...	...
	7	Neemuch		1	1	1	...		1	...	1	...
	8	Râjkot		...	2	...	...		...	...	...	...
			...	5	9	4	5	...	2	2	7	...

8. The causes from which deaths among Europeans and Eurasians were
 Deaths by causes, recorded are given in the following table :—

Causes of deaths.			EUROPEANS.				EURASIANS.			
			1898.		1897.		1898.		1897.	
			Number of deaths	Ratio per 1,000 of popula- tion.	Number of deaths.	Ratio per 1,000 of popula- tion.	Number of deaths.	Ratio per 1,000 of popula- tion.	Number of deaths	Ratio per 1,000 of popula- tion.
Bombay Presi- dency.	Cholera ...	...	...	...	10	54	...	...	3	35
	Small-pox ...	...	...	...	1	05	...	...	...	...
	Fevers ...	...	39	211	90	487	44	516	110	1291
			14	76	21	114	23	270	44	516
	Dysentery and Diar- rhea ...	...	26	141	40	216	13	153	34	399
	Injuries ...	...	10	54	8	43	5	59	3	35
	Other causes ...	...	168	908	141	763	107	1256	90	1057
All causes ...			243	1314	290	1569	169	1984	240	2817
			14	76	21	114	23	270	44	516
Cantonments in quasi-foreign territory.	Fevers ...	...	2	*	1	*	1	*	1	*
	Other causes ...	...	2	*	4	*	2	*	4	*
Total ...			4	*	5	*	3	*	5	*

* As the population for the cantonments in quasi-foreign territory is not obtainable, the ratios of deaths cannot be worked out.
 The deaths from plague are included under fevers. Figures in block type denote deaths from plague.

No deaths among Europeans and Eurasians from either cholera or small-pox were recorded during the year 1898. In 1897 there were 10 deaths from cholera among Europeans and 3 among Eurasians. From small-pox there was only one death, and that occurred among Europeans.

In the City of Bombay during the year 1898 there were among Europeans 13 deaths recorded from plague against 20 in 1897.

In the Collectorate of Poona there was among Europeans 1 death due to plague.

Among Eurasians there were 23 deaths recorded from plague, of which 22 took place in the City of Bombay and 1 in the Collectorate of Poona. In 1897 there were 44 deaths recorded from plague among this community.

9. The various diseases which were the causes of deaths among the Civil European and Eurasian population are given in Appendix No. VI.

10. The statistics of sickness and mortality among the children of the Abu Lawrence Asylum, Mount Abu, for the year 1898 are given in Appendix No. VII.

NATIVE POPULATION—VITAL STATISTICS.

Births.

11. In the Presidency of Bombay, including Sind, during the year 1898, there were 582,371 births registered against 629,693 in 1897. The recorded births for the year under report were less by 47,322 than the number registered in the previous year, and also less by 70,635 than the decennial mean ending 1897. By sexes there were 302,635 males and 279,736 females against 327,573 and 302,120 in 1897.

12. The following table shows the number of births registered in each year from 1888 to 1898, their ratios per mille and the proportion of males to females :—

Years.	Population.	NUMBER OF BIRTHS REGISTERED.			RATIO PER 1,000 OF POPULATION.			IN EVERY 100 BIRTHS THERE WERE		For every 100 Male Births the Females were
		Males.	Females.	Children.	Males.	Females.	Children.	Males.	Females.	
1888 ...	16,454,414	330,316	304,377	634,693	20.07	18.50	38.57	52.04	47.96	92.15
1889 ...	16,454,414	312,974	287,515	600,489	19.02	17.47	36.49	52.12	47.88	91.87
1890 ...	16,454,414	333,098	307,417	641,115	20.28	18.68	38.97	52.05	47.95	92.14
1891 ...	18,820,346	354,630	328,047	682,677	18.84	17.43	36.27	51.85	48.05	92.50
1892 ...	18,820,346	337,150	313,517	650,667	17.91	16.66	34.57	51.82	48.18	92.99
1893 ...	18,820,346	345,424	318,881	664,305	18.35	16.94	35.30	52.00	48.00	92.32
1894 ...	18,820,346	342,411	317,357	660,268	18.22	16.86	35.08	51.94	48.06	92.55
1895 ...	18,820,346	350,115	324,189	674,304	18.60	17.23	35.83	51.92	48.08	92.59
1896 ...	18,820,346	359,097	332,750	691,847	19.08	17.68	36.76	51.90	48.10	92.66
1897 ...	18,820,346	327,573	302,120	629,693	17.41	16.05	33.46	52.02	47.98	92.23
Mean for 10 years ...	18,110,566	339,389	313,617	653,006	18.74	17.32	36.06	51.97	48.03	92.41
1898 ...	18,820,346	302,635	279,736	582,371	16.08	14.86	30.94	51.97	48.03	92.43

The recorded birth-rate for the year was 30·94 per mille against 33·46 in 1897 and a decennial mean of 36·06.

13. From the Annual Form No. I in Appendix VIII, it will be seen that for every 100 female births 108·19 male births were recorded, but this proportion is greater in the undermentioned collectorates and districts:—

In the City of Bombay the ratio of male to female births was	...	109·33
„ Kaira do. do.	...	110·42
„ Ahmedabad do. do.	...	112·77
„ Karáchi do. do.	...	120·72
„ Hyderabad do. do.	...	137·27
„ Thar and Párkar do. do.	...	124·42
„ Shikárpur do. do.	...	119·79
„ Upper Sind Frontier do. do.	...	127·24

All parts of Sind show an excess of male births.

14. The monthly distribution of births in 1898, as compared with 1897 and with the monthly mean of the previous ten years, is given in the following table:—

	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	October.	Nov.	Dec.	Total.
Mean for 10 years, 1888 to 1897 ...	50,112	47,438	53,157	53,081	56,584	58,631	58,496	57,387	56,199	56,868	54,007	51,096	653,006
1897 ...	53,666	51,236	56,098	54,308	58,957	57,796	54,526	61,533	49,026	49,469	47,999	45,079	629,693
1898...	40,357	31,651	34,657	35,478	38,814	42,338	49,508	57,097	61,850	67,962	62,915	69,735	582,371

The greatest number (67,962) was registered in the month of October and the least (31,651) in February. The highest and lowest registrations in 1897 occurred in the months of May and December.

Comparison between the number of births registered in each collectorate and district for 1898 with the number for 1897 and the mean for ten years.

15. The next table shows the number of births registered in 1898 in each collectorate and district of the Presidency contrasted with those for 1897 and the mean for ten years:—

Districts.	No.	Collectorates.	Population according to Census of 1891.	MEAN FOR TEN YEARS, 1888--1897.		1897.		1898.	
				Number of Births.	Ratio per 1,000 of Population.	Number of Births.	Ratio per 1,000 of Population.	Number of Births.	Ratio per 1,000 of Population.
Western Registration District.	1	Khándesh ...	1,460,319	61,963	44·47	64,412	44·11	59,497	40·74
	2	Násik ...	841,087	35,879	43·59	35,096	41·73	31,476	37·42
	3	Thána ...	818,967	26,171	32·09	27,172	33·18	24,708	30·17
	4	City of Bombay ...	806,144	14,722	18·49	9,102	11·29	10,544	13·08
	5	Kolába ...	594,779	17,952	31·98	20,979	35·27	19,665	33·06
Central Registration District.	6	Ahmednagar ...	887,656	38,541	45·52	35,116	39·56	31,823	35·85
	7	Poona ...	1,061,449	37,485	37·00	33,585	31·64	31,535	29·70
	8	Sholápur ...	750,255	29,512	42·16	23,082	30·77	21,575	28·75
	9	Sátára ...	1,225,511	47,299	40·20	41,065	33·51	36,358	29·67
Southern Registration District.	10	Ratnágiri ...	1,105,862	33,140	30·88	35,999	32·55	27,118	24·52
	11	Belgaum ...	1,011,453	39,570	40·91	37,780	37·35	33,780	33·40
	12	Dhárwár ...	1,050,533	44,045	44·03	41,762	39·75	36,609	34·85
	13	Bijápur ...	796,286	31,703	42·33	23,766	29·85	22,138	27·80
Gujarát Registration District.	14	Kánara ...	446,156	13,900	31·67	13,890	31·36	10,601	23·76
	15	Surat ...	649,824	24,909	38·97	26,408	40·64	24,293	37·38
	16	Broach ...	341,450	13,189	39·13	14,473	42·39	13,826	40·49
	17	Kaira ...	871,529	29,842	35·05	30,582	35·09	34,290	39·11
Sind Registration District.	18	Panch Maháls ...	313,381	11,254	38·02	11,807	37·68	13,266	42·33
	19	Ahmedabad...	920,928	29,764	33·01	30,505	33·12	30,315	32·92
	20	Karáchi ...	561,013	15,319	28·56	14,794	26·37	15,510	27·65
	21	Hyderabad ...	883,836	18,426	21·80	15,952	18·06	14,991	16·96
Sind Registration District.	22	Thar and Párkar ...	332,401	7,171	24·42	9,482	28·53	9,412	28·32
	23	Shikárpur ...	915,058	27,022	30·14	28,149	30·76	24,469	26·74
	24	Upper Sind Frontier...	174,469	4,228	26·53	4,735	27·14	4,572	26·20

Abstract.

Western Registration District	...	...	...	4,521,296	156,687	35.70	156,761	34.67	145,890	32.27
Central do.	do.	...	...	5,030,733	185,977	38.67	168,847	33.56	148,409	29.50
Southern do.	do.	...	...	3,304,428	129,218	40.95	117,198	35.47	103,123	31.21
Gujarāt do.	do.	...	...	3,097,112	108,953	36.02	113,775	36.74	115,990	37.45
Sind do.	do.	...	...	2,66,777	72,166	26.42	73,112	25.51	68,954	24.05
Presidency	...	...	...	18,820,346	653,006	36.06	629,693	33.46	582,371	30.94

It will be seen from the abstract of the above table that the number of births recorded was lower than in the previous year in all the registration districts, except Gujarāt.

16. During January the births were much below the average, and in February there was a further fall, and it was in this month that they reached the lowest figure during the year. February usually records the smallest number of births, but in addition the decrease in this month was one of the largest during the year. During March, April, May and June the births registered were very much below the normal, but in July there was an improvement and in August they very nearly reached the average. For the rest of the year they very much exceeded it, but the total for the year was the lowest for the last ten years, and as compared with the decennial mean there was a decrease of 70,635. Every district, except Gujarāt, showed a decrease. In Sind it was small, but in the Central District, which includes most of the worst famine parts, it amounted to 37,568—in the Southern District it was 26,090.

The low birth-rate during the early part of the year was most marked in districts which had suffered from famine and was no doubt due to the breaking up of family life, to reduced stamina leading to lessened fertility and to the reduced number of marriages during the worst period of the famine. The heavy mortality during 1897 and the plague were also, I think, causes of the decrease although no doubt minor ones.

17. Of the 24 collectorates and districts, the number of recorded births in 1898 was higher than in 1897 in the city of Bombay, Kaira, Panch Mahāls and Karāchi. The remaining collectorates show a decrease as compared with 1897. The city of Bombay, as usual, recorded a low birth-rate. The decennial mean up to 1895 is 19.29. In 1897 the rate per mille was 11.29 and in 1898 13.08, but owing to plague these were exceptional years.

As regards the Central Registration District, the Deputy Sanitary Commissioner remarks: "The birth-rate in 1896 was 39.54; in 1897 33.56 and in 1898 29.50. The fall during these three years has been in every collectorate and is very nearly equal in all, but has been greatest in Ratnāgiri. This collectorate is the one in which there has been least famine and plague, but the prevalence of plague in Bombay City has greatly interfered with the earnings of a large number of the population, and this combined with a certain amount of scarcity, no doubt, has led to distress and a lessened birth-rate. The small birth-rate in the Central Registration District during 1898 is no doubt due to the after-effects of famine and to a certain extent to the very heavy mortality during 1897."

The Deputy Sanitary Commissioner, Southern Registration District, remarks that the birth-rate has been less throughout the whole district in consequence of emigration on account of famine and plague.

18. The birth-rate per 1,000 of population among the urban and rural populations in each Collectorate of the Presidency during 1898, as compared with 1897, is given in the following table:—

Birth registration in urban and rural populations.

Collectorates.	Urban and Rural.	Population according to Census of 1891.	1897.	1898.
Khándesh ...	Urban ...	56,658	38.56	41.21
	Rural ...	1,403,651	44.33	40.60
Násik ...	Urban ...	49,319	26.64	27.82
	Rural ...	791,768	42.67	38.02
Thána ...	Urban ...	30,063	20.72	21.61
	Rural ...	788,904	33.65	30.49
City of Bombay ...	Urban ...	806,144	11.19	13.08
	Rural ...	.....	...	...
Kolába ...	Urban ...	23,172	21.53	18.82
	Rural ...	571,607	35.83	33.65
Ahmednagar ...	Urban ...	50,494	31.21	19.05
	Rural ...	837,162	40.06	36.86
Poona ...	Urban ...	171,445	14.00	13.85
	Rural ...	890,004	35.04	32.76
Sholápur ...	Urban ...	102,069	29.39	18.84
	Rural ...	648,186	30.98	30.32
Sátára ...	Urban ...	50,269	33.64	24.93
	Rural ...	1,175,242	33.50	29.67
Ratnágiri ...	Urban ...	24,894	40.13	32.30
	Rural ...	1,081,468	32.38	24.35
Belgaum ...	Urban ...	61,597	27.45	22.18
	Rural ...	949,856	37.99	34.12
Dhárwár ...	Urban ...	122,854	40.37	26.52
	Rural ...	928,179	39.67	35.94
Bijápur ...	Urban ...	21,371	37.43	35.37
	Rural ...	774,915	29.64	27.59
Kánara ...	Urban ...	25,228	32.35	25.88
	Rural ...	420,928	31.06	23.63
Surat ...	Urban ...	123,845	34.93	32.74
	Rural ...	526,479	41.98	38.47
Broach ...	Urban ...	52,207	42.37	40.55
	Rural ...	289,243	42.33	40.48
Kaira ...	Urban ...	66,109	46.73	51.41
	Rural ...	805,420	34.13	38.35
Panch Maháls ...	Urban ...	27,626	40.61	46.30
	Rural ...	285,755	37.39	41.95
Ahmedabad ...	Urban ...	194,096	30.26	33.07
	Rural ...	726,832	33.89	32.88
Karáchi ...	Urban ...	97,103	32.00	38.40
	Rural ...	464,004	25.19	25.40
Hyderabad ...	Urban ...	54,512	38.16	39.62
	Rural ...	829,324	16.73	15.47
Thar and Párkar...	Urban ...	3,698	37.86	43.00
	Rural ...	328,703	28.43	28.15
Shikárpur ...	Urban ...	82,936	41.38	37.17
	Rural ...	832,122	29.70	25.70
Upper Sind Frontier ...	Urban ...	8,258	35.84	26.27
	Rural ...	166,211	26.71	26.20
Presidency ...	Urban ...	2,304,373	24.85	24.05
	Rural ...	16,515,973	34.66	31.91

19. The recorded birth-rates among the urban and rural populations of the Presidency were 24.05 and 31.91 against 24.85 and 34.66 in 1897. Except in the Collectorates of Khándesh, Ratnágiri, Bijápur, Kánara, Kaira, Panch Maháls, Ahmedabad and throughout Sind, with the exception of the Upper Sind Frontier, the birth-rates were higher among the rural than in the urban population. The urban rates were in many places greatly affected by the exodus caused by plague, and so also were rural rates in some parts, but not, I think, to so great an extent,

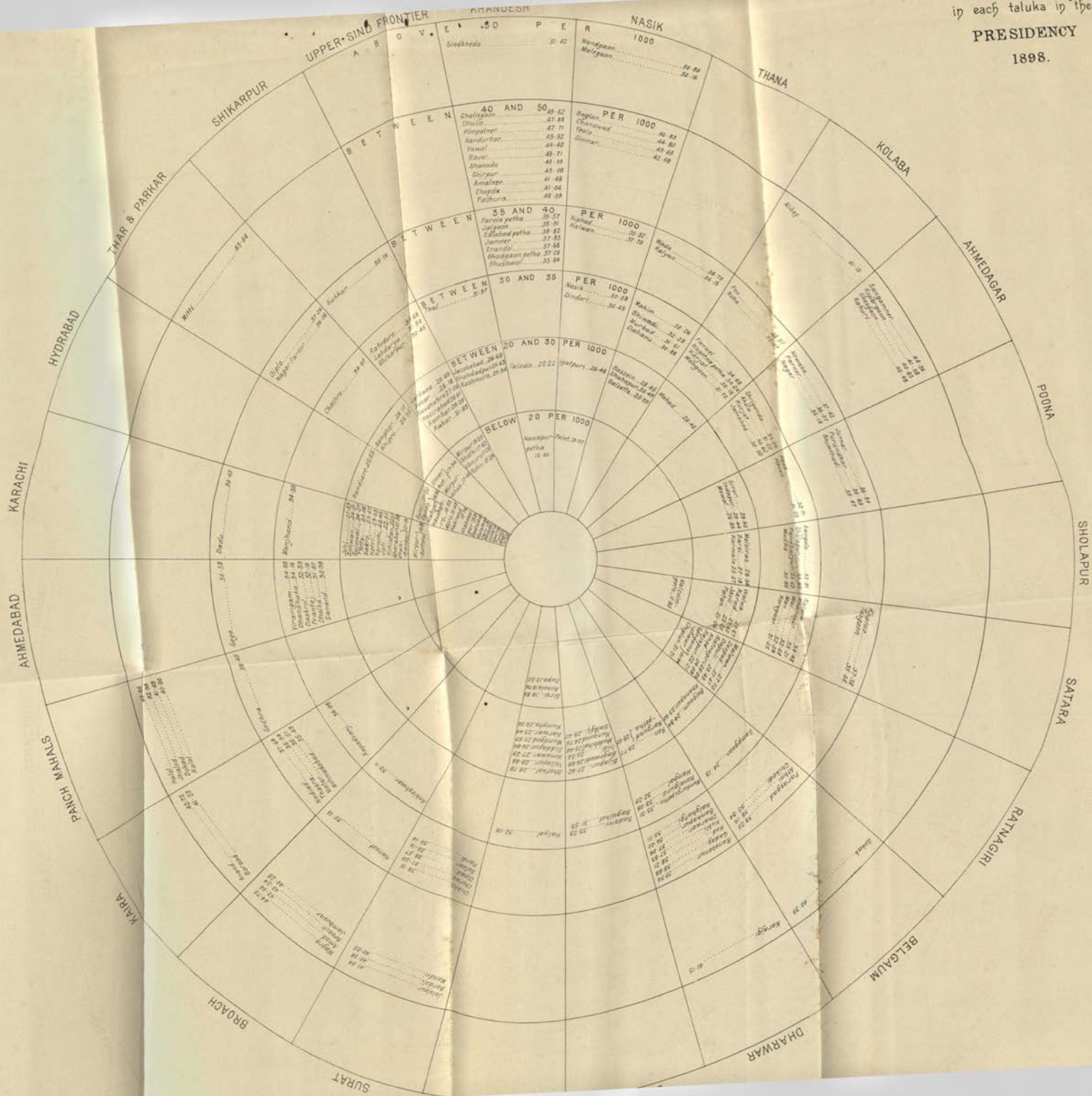
20. In the Collectorate of Broach and in the district of the Upper Sind Frontier the birth-rates among the rural and urban populations were nearly the same, 40.48 and 40.55, respectively, in the former, and 26.20 and 26.27 in the latter.

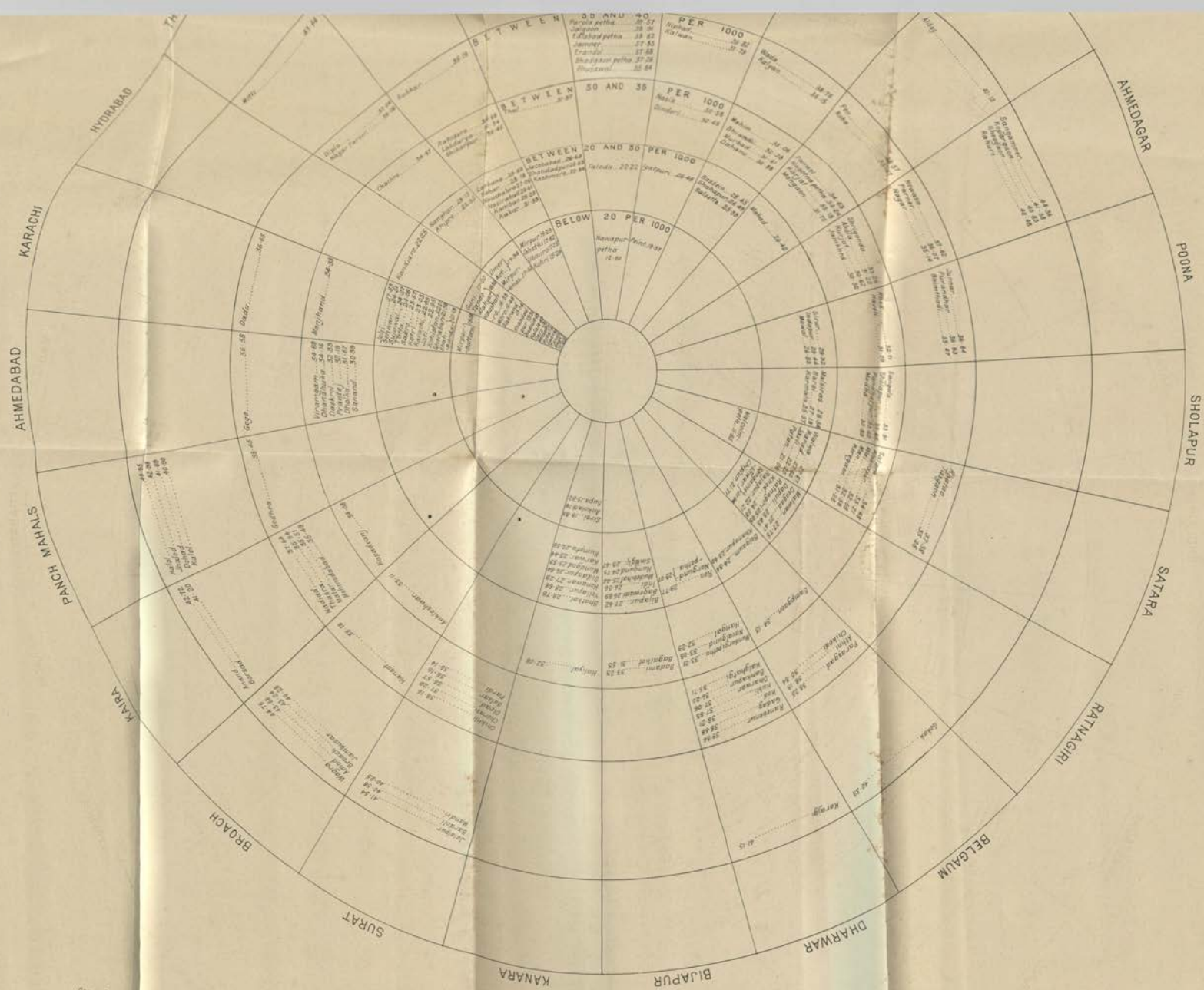
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21. The difference is most marked in the following collectorates :—

			RATIO PER 1,000.	
			Rural.	Urban.
Poona	...	...	32·76	13·85
Ahmednagar	...	...	36·86	19·05
Kolāba	...	...	33·65	18·82
Belgaum	...	...	34·12	22·18
Sholāpur	...	...	30·32	18·84
Nāsik	...	...	38·02	27·82

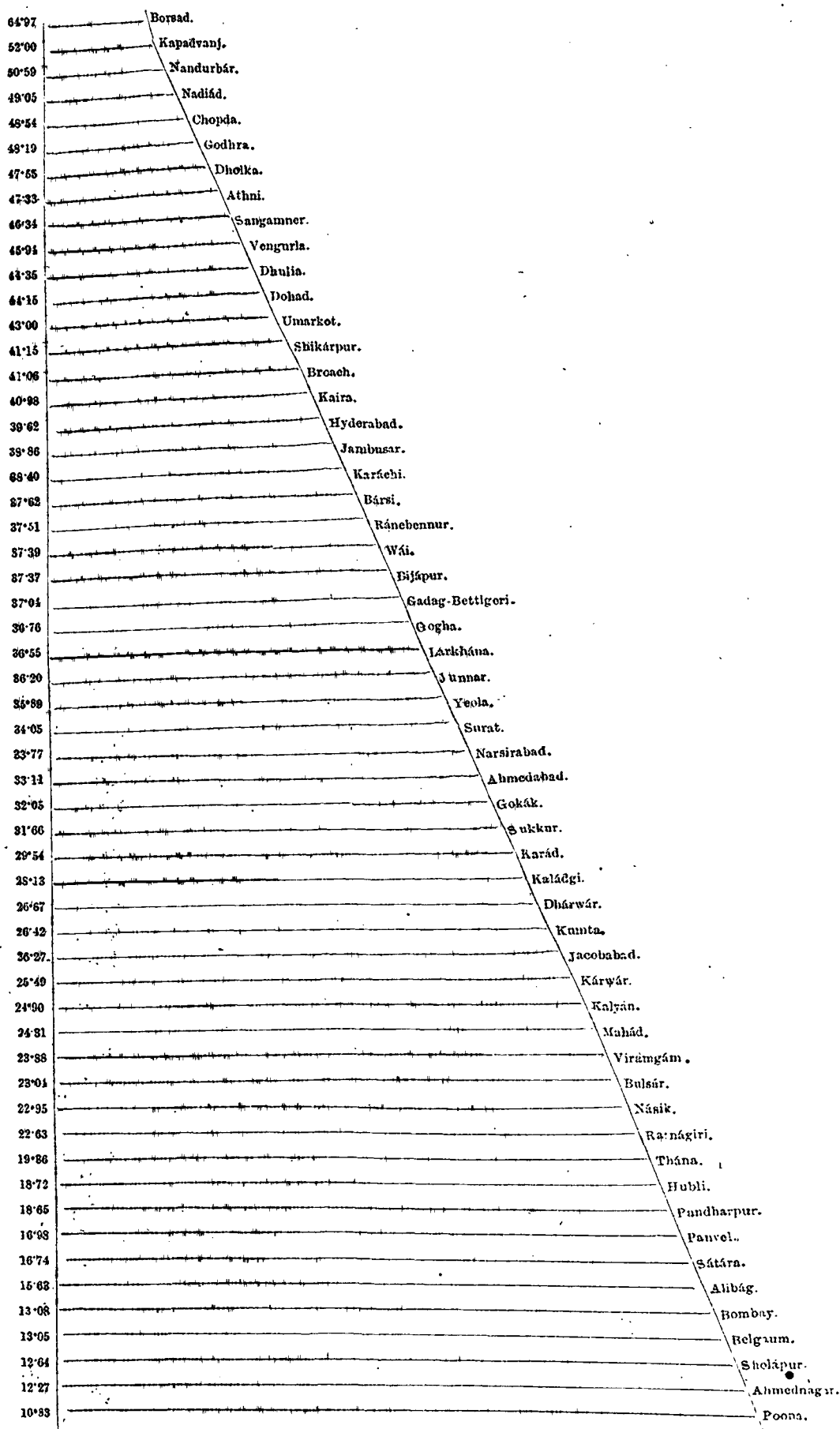
Whilst in the undermentioned 11 collectorates and districts, the birth-rates in the rural population were lower than in the urban, 4 out of the 11 being in Sind :—

			Urban.	Rural.
Hyderabad	...	...	39·62	15·47
Thar and Pārkar	...	...	43·00	28·15
Kaira	...	...	51·41	38·35
Karāchi	...	...	38·40	25·40
Shikārpur	...	...	37·17	25·70
Ratnāgiri	...	...	32·30	24·35
Bijāpur	...	...	35·37	27·59
Panch Mahāls	...	...	46·30	41·95
Khāndesh	...	...	44·21	40·60
Kánara	...	...	25·88	23·63
Ahmedabad	...	...	33·07	32·88

22. The birth-rate for each rural registration circle is shown in a diagram on the opposite page, which has been drawn so as to show at a glance the rate in each collectorate.
 Birth-rates in talukas.

23. In three talukas the birth-rate was above 50 per mille. In 36 rural registration circles it was between 40 and 50 per mille ; in 47 it was between 35 and 40 ; in 46 it ranged from 30 to 35 ; in 64 it was between 20 and 30 and in 24 it was below 20 per mille. Of these last 24 rural registration circles, 18 are in Sind, and of the remaining 6, 1 is situated in the Collectorate of Khāndesh, 1 in Nāsik, 1 in Sātāra, and 3 in Kánara.

24. The following diagram shows the recorded birth-rate in 56 towns in the Presidency arranged in sequence of high birth-rate per mille :—
 Birth-rate in sequence in towns.

Recorded Birth-rate per 1,000 of Population in Towns.

25. Out of 56 towns in the Presidency, 16 had a birth-rate exceeding 40 per mille. Poona, Ahmednagar, Sholápur, Belgaum, Bombay, Alibág, Sátára, Panvel, Hubli and Thána have very low birth-rates.

The fall in the case of Bombay, Poona, Ahmednagar, Belgaum, Sátára and Dhule, is chiefly due to the decrease in population owing to the exodus caused by the plague.

The following Municipalities deserve credit for the attention they have paid to the registration of births, and show that a high birth-rate is not confined to any particular part of the Presidency :—

Collectorates.	Municipalities.	Birth-rate.
Kaira ...	Borsad ...	64.97
Khândesh ...	Kapadvanj ...	52.00
Kaira ...	Nandurbár ...	50.59
Khândesh ...	Nadiád ...	49.05
Panch Maháls ...	Chopda ...	48.54
Ahmedabad ...	Godhra ...	48.19
Belgaum ...	Dholka ...	47.55
Ahmednagar ...	Athni ...	47.33
Ratnagiri ...	Sangamner ...	46.34
Khândesh ...	Vengurla ...	45.94
Panch Maháls ...	Dhulia ...	44.35
Thar and Parkar ...	Dohad ...	44.15
Shikárpur ...	Umarkote ...	43.00
Broach ...	Shikárpur ...	41.15
Kaira ...	Broach ...	41.06
	Kaira ...	40.98

27. The following table contrasts the recorded birth-rate in each Cantonment in British territory in 1893 with the results of the previous year :—

Cantonments.	Birth-rate in 1897.	Birth-rate in 1898.
Devláli ...	22.24	12.21
Málegaon ...	28.20	28.27
Ahmednagar ...	21.99	14.58
Poona ...	19.34	15.63
Kirkee ...	19.80	17.53
Belgaum ...	9.97	10.71
Ahmedabad ...	12.02	17.62

The birth registration in the Cantonment of Málegaon, as in the year 1897, shows a good result among cantonments. Ahmedabad Cantonment is improving, but there is, except in Belgaum, a falling off in the other cantonments during the present year: this in most cases was due to plague.

28. During the year 1898, 7,859 children were registered as still-born against 6,797 in 1897. Of these, 4,507 were male and 3,352 females against 3,848 and 2,949, respectively, in 1897. These births occurred in the following collectorates :—

Collectorates.	Recorded Births.	STILL-BORN.			Percentage of still-born to total births.
		Urban.	Rural.	Total.	
Khândesh ...	59,497	28	534	562	0.94
Násik ...	31,476	4	129	133	0.42
Thána ...	24,708	15	100	115	0.47
City of Bombay ...	10,544	1,543	...	1,543	14.63
Koláha ...	19,665	12	292	304	1.55
Ahmednagar ...	31,823	33	11	44	0.14
Poona ...	31,535	179	60	239	0.76
Sholápur ...	21,575	32	84	116	0.54
Sátára ...	36,358	9	205	214	0.59
Ratnágiri ...	27,118	5	80	85	0.31
Belgaum ...	33,780	45	361	406	1.20

Collectorates.	Recorded Births.	STILL-BORN.			Percentage of still-born to born alive.
		Urban,	Rural.	Total.	
Dhárwár ...	36,609	178	715	893	2.44
Bijápur ...	22,138	11	304	315	1.42
Kánara ...	10,601	13	469	482	4.55
Surat ...	24,293	211	333	544	2.24
Broach ...	13,826	100	123	223	1.61
Kaira ...	34,290	57	121	178	.52
Panch Maháls ...	13,266	10	53	63	.47
Ahmedabad ...	30,315	508	17	525	1.73
Karáchi ...	15,510	202	125	327	2.11
Hyderabad ...	14,991	134	30	164	1.09
Thar and Párkar ...	9,412	5	39	44	.47
Shikárpur ...	24,469	171	185	356	1.45
Upper Sind Frontier ...	4,572	9	35	44	.96
Presidency ...	582,371	3,514	4,345	7,859	1.35

29. The total number of still-born in 1898 is higher than in the previous year, 7,859 against 6,797 in 1897, the percentage being 1.35 against 1.08 in 1897. Bombay City still holds the lead. The numbers in this city have always been high, but during the last two years they have risen from between 9 and 10 per cent. to over 14 per cent. The general causes, in my opinion, are the same as mentioned in the year 1896, but the large increase during the last two years is no doubt due to plague, and this is also the opinion of the Health Officer of the Municipality.

The Collectorate of Kánara shows the next highest percentage of still-births, the number being 482 in 1898 against 390 in 1897, and the percentage to born alive is 4.55 against 2.81 in 1897. This collectorate has nearly always a high rate.

There was a marked increase in the number of "still-born" in the Collectorates of Poona, Sholápur, Sátára and Dhárwár, and it seems as if this was due to the after effects of famine and to plague. The increase in Dhárwár is very marked, and this was no doubt due to plague.

Deaths.

30. Among the civil population in the rural, town and cantonment circles in the Presidency, 548,825 deaths were registered during the year 1898. In 1897, 749,916 deaths, or 201,091 more than in 1898, were recorded.

The following statement shows the number of deaths recorded in each year since 1888 :—

1888	...	468,039	1894	...	607,179
1889	...	518,562	1895	...	538,540
1890	...	463,616	1896	...	596,472
1891	...	513,132	1897	...	749,916
1892	...	611,742	1898	...	548,825
1893	...	511,831			

31. Of the total deaths registered, 288,796 occurred among males and 260,029 among females, against 396,154 and 353,762, respectively, in 1897.

32. The death-rate per mille in 1898 was 29.16 against 39.84 in 1897 and a decennial mean of 30.80.

33. The millesimal rates of males dying to males living was 29.66 and of females dying to females living was 28.63. In 1897 these ratios were respectively 40.68 and 38.95. For every 100 females who died, 111.06 deaths among males were recorded, but these proportions vary considerably in the following collectorates and districts :—

In Thána	the ratio of male to female deaths was	113.45 per cent.
„ Bombay	do.	144.48 „
„ Ahmednagar	do.	113.31 „

In Karachi the ratio of male to female deaths was 142·35 per cent.

„ Hyderabad	do.	do.	129·17	„
„ Thar and Parkar	do.	do.	115·14	„
„ Shikarpur	do.	do.	114·63	„
„ Upper Sind Frontier	do.	do.	122·16	„

34. The following table shows, for each registration district, the population enumerated at the census of 1891, the number of deaths recorded in 1898 by sexes, and their ratios per mille :—

Registration Districts.	POPULATION ACCORDING TO CENSUS OF 1891.			NUMBER OF DEATHS.			RATIO PER 1,000 OF POPULATION.		
	Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.
Western Registration District	2,408,030	2,111,366	4,521,236	85,521	71,416	157,237	35·61	33·82	34·70
Central do.	2,500,096	2,530,647	5,030,733	68,487	65,707	134,194	27·39	25·91	26·65
Southern do.	1,670,334	1,634,094	3,304,428	70,130	66,516	136,646	41·99	40·70	41·34
Gujarat do.	1,593,090	1,505,012	3,098,102	47,213	44,603	91,816	29·66	29·65	29·65
Sind do.	1,564,945	1,391,831	2,956,776	27,125	21,737	48,862	17·33	15·69	16·51
Presidency	9,737,386	9,052,960	18,820,346	283,796	260,029	543,825	29·06	28·68	28·87

35. The highest death-rate occurred in the Southern Registration District, which had the misfortune to suffer from both plague and cholera; the former to a considerable extent. All the other districts, except the Western Registration District, were much below the decennial mean, notwithstanding the presence of plague in some of them. The almost total absence of cholera, except in the Southern Registration District, was in favour of a low death-rate: there was no cholera at all in Sind.

36. Notwithstanding 10,537 deaths from plague in the Central Registration District, the death-rate in this district was considerably below the decennial mean. Plague in Bombay City was the cause of the death-rate of the Western Registration District exceeding the decennial mean, but it only did so to a slight extent.

37. The next table shows the recorded deaths in each collectorate in 1898 as compared with 1897 and the mean of the previous ten years :—

Districts.	No.	Collectorates.	Population according to Census of 1891.	MEAN FOR TEN YEARS 1888-1897.		1897.		1898.	
				Number.	Ratio per 1,000 of Population.	Number.	Ratio per 1,000 of Population.	Number.	Ratio per 1,000 of Population.
Western Registration District.	1	Khandesh ...	1,460,319	48,503	34·81	62,510	42·81	41,691	28·51
	2	Nasik ...	841,087	31,728	38·65	46,800	55·64	20,501	24·37
	3	Thana ...	818,967	22,430	27·51	31,200	38·08	21,211	25·91
	4	City of Bombay ...	806,144	26,996	33·91	47,475	58·98	51,177	63·37
	5	Kolaba ...	594,779	15,146	26·98	22,978	38·63	11,005	18·50
Central Registration District.	6	Ahmednagar ...	867,656	30,834	36·42	39,393	44·37	12,701	14·53
	7	Poona ...	1,061,449	33,682	33·24	60,454	56·95	20,000	18·84
	8	Sholapur ...	750,255	24,225	34·61	38,182	50·89	15,000	20·00
	9	Satara ...	1,225,511	39,670	33·72	67,301	54·92	21,000	17·13
Southern Registration District.	10	Ratnagiri ...	1,106,862	23,546	21·94	33,321	30·13	21,000	18·98
	11	Belgaum ...	1,011,453	20,822	30·83	42,201	41·72	10,000	9·88
	12	Dharnwar ...	1,050,533	32,267	32·26	38,809	36·94	10,000	9·52
	13	Bijapur ...	796,286	22,703	30·39	36,888	46·32	10,000	12·54
Gujarat Registration District.	14	Kanara ...	446,156	12,534	28·56	15,650	35·09	11,000	24·66
	15	Surat ...	649,824	21,791	34·09	25,270	39·44	10,000	15·40
	16	Broach ...	341,450	13,897	39·74	11,824	34·63	10,000	29·28
	17	Kaira ...	871,529	29,853	35·06	25,580	29·45	10,000	11·37
Sind Registration District.	18	Panch Mahals ...	313,381	7,365	24·88	6,616	21·11	10,000	31·90
	19	Ahmedabad ...	920,928	33,041	36·65	26,008	28·25	10,000	10·87
	20	Karachi ...	561,013	13,321	24·84	17,115	30·51	10,000	17·82
	21	Hyderabad ...	883,896	15,156	17·93	14,060	15·92	10,000	11·30
Sind Registration District.	22	Thar and Parkar ...	332,401	5,388	18·35	6,600	19·82	10,000	30·00
	23	Shikarpur ...	915,058	21,305	23·77	28,974	31·66	10,000	10·87
	24	Upper Sind Frontier ...	174,469	3,140	19·70	1,032	5·92	10,000	5·74

Abstract.

Western Registration District	...	...	4,521,296	144,803	32.99	210,963	46.66	157,237	34.78
Central do.	...	...	5,030,733	151,957	31.59	238,651	47.43	114,194	22.69
Southern do.	...	...	3,304,428	97,386	30.86	133,554	40.42	136,665	41.36
Gujarát do.	...	...	3,097,112	105,447	34.85	95,958	30.98	91,877	29.66
Sind do.	...	...	2,866,777	58,310	21.35	70,790	24.69	48,552	17.04
Presidency	...	...	18,820,346	557,903	30.80	749,916	39.84	548,825	29.16

There were high death-rates very much over the decennial mean in the City of Bombay and in the Collectorates of Belgaum and Dhárwár—these were due to plague. In all the other collectorates, except Thána and Panch Maháls, the rates were below the decennial mean—in most cases very considerably so.

The Deputy Sanitary Commissioner, Gujarát Registration District, remarks that the increased death-rates in the Collectorates of Broach and Panch Maháls are due to their being affected with plague during the year.

38. The next statement shows the death-rate in 1898 by Collectorates in sequence of the highest rates which ranged from 64.03 per mille in the City of Bombay to 11.04 in the Collectorate of Hyderabad. In 1897 the maximum and minimum ratios (58.88 and 15.92) occurred in the same collectorates:—

Collectorates.	NUMBER OF DEATHS.			RATIO PER 1,000 OF POPULATION.		
	Male.	Female.	Total.	Male.	Female.	Total.
City of Bombay	30,504	21,113	51,617	60.08	70.74	64.03
Dhárwár	34,049	32,986	67,035	64.53	63.08	63.81
Belgaum	21,816	20,439	42,255	42.74	40.79	41.77
Broach	6,519	6,497	13,016	37.26	39.00	38.12
Násik	13,863	12,988	26,851	32.21	31.62	31.92
Surat	10,268	10,152	20,420	31.93	30.92	31.42
Khándesh	21,791	19,700	41,491	29.23	27.56	28.41
Thána	12,338	10,875	23,213	28.86	27.78	28.34
Kaira	12,709	11,730	24,439	27.59	28.54	28.04
Panch Maháls	4,372	4,298	8,670	26.98	28.41	27.66
Ahmedabad	13,346	11,986	25,332	28.22	26.71	27.51
Kánara	6,299	5,686	11,985	26.89	26.83	26.86
Sátára	16,359	16,521	32,880	26.66	26.99	26.83
Kolába	7,325	6,740	14,065	24.50	22.77	23.65
Karáchi	7,607	5,344	12,951	24.51	21.32	23.09
Poona	12,492	11,736	24,228	23.09	22.54	22.82
Ahmednagar	10,257	9,044	19,301	22.75	20.77	21.74
Sholápur	8,172	7,692	15,864	21.44	20.84	21.14
Shikárpur	9,765	8,514	18,279	19.78	20.20	19.98
Ratnágiri	11,207	10,714	21,921	21.82	18.09	19.82
Bijápur	7,985	7,405	15,390	20.06	18.59	19.33
Upper Sind Frontier	1,659	1,358	3,017	17.24	17.36	17.29
Thar and Párkar	2,594	2,253	4,847	14.06	15.23	14.58
Hyderabad	5,500	4,258	9,758	11.45	10.55	11.04
Total	288,796	260,029	548,825	29.66	28.63	29.16

39. The above statement shows that in the City of Bombay, Broach, Kaira, Panch Maháls, Thar and Párkar and Shikárpur, the recorded death-rates of females were higher than those among males. In Sátára, Kánara and the Upper Sind Frontier, the death-rates of males and females were about equal. In the remaining collectorates the death-rates of males exceeded those of females. In 1897 the female death-rates exceeded those among males in the City of Bombay, Shikárpur, the Upper Sind Frontier and Thar and Párkar.

40. Comparing the birth and death-rates in each Collectorate for 1898 : the birth-rates in the City of Bombay and the Collectorate of Dhárwár were much below the registered death-rates—13·08 and 64·03 per 1,000, respectively, for the City of Bombay and 34·85 and 63·81 for the Collectorate of Dhárwár ; as stated in the report for 1897, this may be ascribed to the plague and to the exodus of families which took place on account of plague. In the following Collectorates the recorded birth-rates are lower than the registered death-rate:—

Collectorates.	Birth-rate.	Death-rate.
Belgaum	33·40	41·77
Kánara	23·76	26·86

This in Belgaum was due to a high death-rate from plague, and in Kánara to a very low birth-rate.

In the other Collectorates and districts the birth-rates were higher than the registered death-rates.

The difference is noticeable in the following Collectorates :—

Collectorates.	Birth-rate.	Death-rate.
Panch Maháls	42·33	27·66
Ahmednagar	35·85	21·74
Thar and Párkár	28·32	14·58
Khándesh	40·74	28·41
Kaira	39·11	28·04

41. The figures given below show the total deaths in 1898 under different ages, as also the ratios per 1,000 living calculated on the population of each age-period enumerated at the Census of 1891 and the percentage on total deaths :—

Age-period.	Population according to Census of 1891.	Number of deaths.	Ratio per 1,000 of population.	Percentage on total deaths.
Under 1 year	680,472	99,590	146·35	18·15
1 and under 5 years	2,178,646	90,732	41·65	16·53
5 and under 10 do.	2,615,588	33,696	12·88	6·14
10 do. 15 do.	1,820,754	24,889	13·67	4·54
15 do. 20 do.	1,470,976	19,102	12·98	3·48
20 do. 30 do.	3,410,817	55,217	16·48	10·06
30 do. 40 do.	2,765,949	55,323	20·00	10·08
40 do. 50 do.	1,841,976	46,115	25·04	8·40
50 do. 60 do.	1,117,120	42,298	37·86	7·71
60 and upwards	918,048	81,860	89·17	14·91
Total	18,820,346	548,825	29·16	100

As compared with last year the table shows that there has, in the present year, been a decrease in the percentage of deaths under 5 years, and an increase between 20 and 60, which is most marked between the age of 20 and 40. These variations are no doubt due to the almost complete absence of cholera and famine and to the increase in plague during the present year. The variation is most marked in the decrease of deaths below 5, and this would be no doubt due to the decrease of famine. The absence of cholera would tend to reduce adult deaths, but this has no doubt been counteracted by the increase in plague, which would tend to swell them considerably.

The total deaths by sexes under the different ages in 1898, in each Collectorate is given in annual Form IV in the Appendix.

Deaths by caste or class.

42. The deaths by caste in each Collectorate are given in annual Form V in the Appendix.

43. The subjoined table shows the deaths in 1898 arranged according to the specified causes laid down by the Government of India, and contrasted with the results for 1897 and

Deaths by causes.
with the decennial mean. The "causes of deaths" will be briefly noticed in the next section :—

Causes of deaths.	Mean for 10 years 1888—1897.		1897.		1898.	
	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.	Number.	Ratio per 1,000 of population.
Cholera ...	28,672	1·58	57,109	3·03	4,368	·23
Small-pox ...	3,720	·21	3,835	0·20	1,831	·10
Fevers ...	384,710	21·24	452,596	24·05	302,515	16·07
			46,944	2·49	86,191	4·53
Dysentery and Diarrhoea ...	42,783	2·36	85,966	4·57	56,789	3·02
Injuries ...	6,029	·33	6,907	0·37	6,984	·37
Other causes ...	91,989	5·08	143,503	7·62	176,335	9·37
All causes ...	557,903	30·80	749,916	39·84	548,825	29·16
			46,944	2·49	86,191	4·53

N.B.—Figures in thick type denote deaths from plague, which have been included under "Fevers."

44. The monthly distribution of deaths in 1898 is shown in the following table contrasted with deaths in 1897 and with the decennial mean. As compared with the decennial mean the death-rate up to the end of April was normal; it then fell very much below the mean until the end of August, during September it was again normal, but after that month it rose above the mean, especially during October and November, and remained so until the end of the year.

45. The most marked variations in the foregoing are the low death-rate from May to end of August, and the high death-rate during October and November. The former was due to the very low mortality from cholera, and the latter to the large amount of plague present.

Months.	DEATHS FROM ALL CAUSES.					
	Mean for 10 years 1888—1897.	Ratio per 1,000 of Population.	1897.	Ratio per 1,000 of Population.	1898.	Ratio per 1,000 of Population.
January ...	44,990	2·48	50,854	2·71	49,876	2·65
February ...	39,238	2·17	47,564	2·53	43,213	2·30
March ...	43,922	2·43	54,347	2·89	45,747	2·43
April ...	45,477	2·51	56,449	3·00	33,181	2·08
May ...	45,689	2·52	59,867	3·18	34,816	1·85
June ...	43,320	2·39	60,572	3·22	30,373	1·61
July ...	51,195	2·83	75,732	4·02	35,693	1·89
August ...	54,369	3·00	82,473	4·38	46,038	2·45
September ...	47,817	2·64	71,193	3·78	50,082	2·66
October ...	47,078	2·60	68,829	3·65	60,336	3·21
November ...	47,659	2·63	65,139	3·46	59,707	3·17
December ...	47,149	2·60	56,897	3·02	53,763	2·86
Year ...	557,903	30·80	749,916	39·84	548,825	29·16

The death-rate for the year was 29·16 and the decennial mean is 30·80. It is therefore seen that notwithstanding the presence of plague, the year—judged by the number of deaths—was a healthy one. If there had been no plague the year might have been described as a healthy one up to the end of April, a very healthy one from April to October and about a normal one from then up to the end of the year.

As things were, plague reduced the first period to a normal one, affected the middle very little, but converted the last into a very unhealthy one. Of course, this is taking the Presidency as a whole, otherwise, districts varied greatly.

Compared with the previous year there is a great improvement as shown by the rates 39·84 for 1897 and 29·16 for 1898. Last year the death-rate was greatly increased by the effects of famine, by a very heavy cholera mortality and by plague, and was considerably above the decennial mean (39·84—30·80).

46. Statistical returns are received from 220 rural and 56 town circles, from 7 cantonments in British and 8 in foreign territory. The population, according to the census of 1891, of the rural circles was 16,515,973, of the town circles 2,238,399, and of the cantonments in British territory 65,974, exclusive of Europeans and Eurasians, or a total of 18,820,346.

47. The death-rate per mille among the urban and rural populations in each collectorate of the Presidency during the year 1898 as compared with 1897 is given in the following table:—

Collectorates.	Urban and Rural.	Population according to Census of 1891.	1897.	1898.
Khândesh ...	Urban ...	56,558	42·39	33·91
	Rural ...	1,403,661	42·82	28·10
Násik ...	Urban ...	49,319	69·53	33·24
	Rural ...	791,768	54·77	31·84
Thána ...	Urban ...	30,063	61·00	42·97
	Rural ...	788,904	37·10	27·78
City of Bombay	Urban ...	806,144	58·88	64·03
	Rural ...	.....	...	...
Kolába ...	Urban ...	23,172	57·44	31·68
	Rural ...	571,607	37·87	23·32
Ahmednagar	Urban ...	50,494	61·63	26·88
	Rural ...	837,162	43·34	21·44
Poona ...	Urban ...	171,445	85·89	25·66
	Rural ...	890,004	51·38	22·39
Sholápur ...	Urban ...	102,069	89·44	24·78
	Rural ...	648,186	44·81	20·68
Sátára ...	Urban ...	50,269	76·36	37·04
	Rural ...	1,175,242	54·00	26·39
Ratnágiri ..	Urban ...	24,394	35·75	25·94
	Rural ...	1,081,468	30·00	19·68
Belgaum ...	Urban ...	61,597	39·42	87·60
	Rural ...	949,856	41·87	38·80
Dhárwár ...	Urban ...	122,354	32·16	56·63
	Rural ...	928,179	37·57	64·76
Bijápur ...	Urban ...	21,371	48·62	28·96
	Rural ...	744,915	46·26	19·07
Kánara ...	Urban ...	25,228	23·62	18·91
	Rural ...	420,928	35·78	27·34
Surat ...	Urban ...	123,345	62·38	39·21
	Rural ...	526,479	33·38	29·60
Broach ...	Urban ...	52,207	38·05	40·53
	Rural ...	289,243	34·01	37·65
Kaira ...	Urban ...	66,109	39·96	38·78
	Rural ...	805,420	28·48	27·15
Panch Maháls	Urban ...	27,626	32·54	41·55
	Rural ...	285,755	20·01	26·32
Ahmedabad...	Urban ...	194,096	42·40	39·35
	Rural ...	726,832	25·37	24·19
Karáchi ...	Urban ...	97,009	70·34	60·23
	Rural ...	464,904	22·18	19·10

Collectorates.	Urban and Rural.			Population according to Census of 1891.	1897.	1898.
Hyderabad ... {	Urban ...	...	...	54,512	38·39	27·59
	Rural ...	...	...	829,324	14·41	9·15
Thar and Párkar ... {	Urban ...	...	...	3,698	47·86	45·70
	Rural ...	...	...	328,703	19·54	14·23
Shikárpur ... {	Urban ...	...	...	82,936	43·76	33·44
	Rural ...	...	...	832,122	31·21	19·09
Upper Sind Frontier ... {	Urban ...	...	...	8,258	34·63	40·08
	Rural ...	...	...	166,211	22·54	16·16
Presidency ... {	Urban ...	...	...	2,304,373	56·73	47·88
	Rural ...	...	...	16,515,973	37·49	26·55

48. The recorded death-rates among the urban and rural populations of the Presidency were, respectively, 47·88 and 26·55 per 1,000 of population against 56·73 and 37·49 in 1897. Among the rural population the death-rates were higher than in the urban population in the Collectorates of Dhárwár and Kánara where the rural death-rates exceeded the urban by 8·13 in the former and 8·43 in the latter.

49. In the undermentioned 21 Collectorates and Districts the death-rates in the rural population were lower than in the urban :—

Collectorates.	Urban.	Rural.
Khándesh ...	33·91	28·19
Násik ...	33·24	31·84
Thána ...	42·97	27·78
Kolába ...	31·68	23·32
Ahmednagar ...	26·68	21·41
Poona ...	25·06	22·39
Sholápur ...	24·78	20·58
Sátára ...	37·04	26·39
Ratnágiri ...	25·94	19·68
Belgaum ...	87·60	38·50
Bijápur ...	28·96	19·07
Surat ...	39·21	29·60
Broach ...	40·53	37·65
Kaira ...	38·78	27·15
Panch Maháls ...	41·55	26·32
Ahmedabad ...	39·93	24·19
Karáchi ...	60·33	15·30
Hyderabad ...	27·59	9·15
Thar and Párkar ...	45·70	14·23
Shikárpur ...	33·44	19·09
Upper Sind Frontier ...	40·08	16·16

50. The death-rate in each táluka (Rural Registration Circle) in the Presidency and in Sind is shown in the diagram on the opposite page, from which it will be seen that 19 tálukas recorded a high death-rate of over 40 per mille. In 30 rural circles the death-rate was between 30 and 40 per mille, in 48 it was between 25 and 30, in 44 between 20 and 25, and in 79 the death-rate recorded was below 20 per mille.

51. The high death-rates in some of the rural registration circles in the Collectorates of Belgaum, Dhárwár, Broach, Surat and the City of Bombay were due to plague and in Dhárwár cholera was also present. The low birth-rates under 20 per mille are mostly shown in tálukas of Sind where registration is defective.

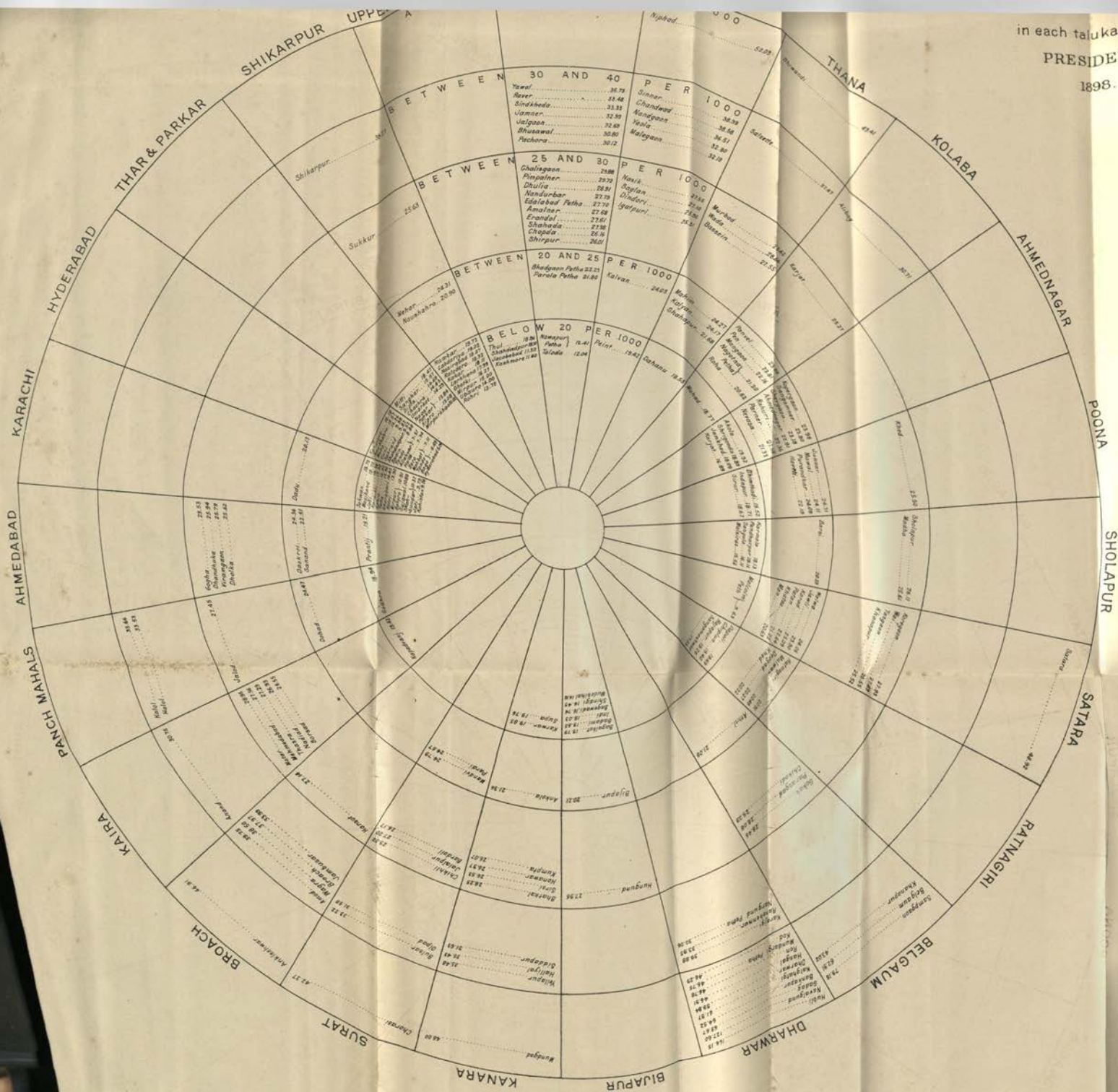
52. It may be useful to show side by side the birth and death-rates in sequence in the town circles of this Presidency in order to exhibit the high death-rate that has taken place in some of them and the very low birth-rate which has been recorded in others :—

Birth and death-rates in sequence in towns.

NASIK

1000

50.00



Birth-rate per 1,000.

Death-rate per 1,000.

64.07	Borsad.
62.00	Kapadvanj.
50.59	Nandurbar.
49.05	Nadiad.
45.51	Chopda.
48.19	Godhra.
47.65	Dholka.
47.33	Athni.
46.34	Sangamner.
45.94	Vengurla.
44.35	Dhulia.
44.15	Dohad.
43.00	Umarkot.
41.15	Shikarpur.
41.00	Broach.
40.98	Kaira.
39.62	Hyderabad.
38.80	Jambusar.
38.40	Karachi.
37.62	Barsi.
37.51	Ranobennur.
39	Wai.
37.87	Bijapur.
37.04	Gadag-Bettigeri.
36.76	Gogha.
36.55	Larkhana.
36.20	Junnar.
35.89	Yeola.
34.05	Surat.
33.71	Nasirabad.
33.11	Ahmedabad.
32.05	Gokak.
31.00	Sukkur.
29.64	Karad.
28.13	Kaladgi.
26.67	Dharwar.
26.43	Kumta.
26.27	Jacobabad.
25.49	Karyar.
24.90	Kalyan.
24.31	Mahad.
23.68	Virangam.
23.04	Bulsar.
22.95	Nasik.
22.63	Ratnagiri.
19.36	Thana.
18.72	Hubli.
18.65	Pandharpur.
16.98	Panvel.
16.74	Satara.
15.63	Alibag.
13.05	Bombay.
13.64	Belgaum.
12.27	Sholapur.
10.83	Ahmednagar.
	Poona.

100.76	Belgaum.
93.25	Gokak.
69.09	Hubli.
64.03	Bombay.
60.33	Karachi.
51.65	Dharwar.
51.55	Gadag-Bettigeri.
51.10	Thana.
47.51	Bulsar.
45.70	Umarkot.
44.98	Nandurbar.
43.66	Wai.
43.04	Nadiad.
42.91	Dohad.
42.70	Broach.
42.10	Ahmedabad.
40.44	Dholka.
40.36	Godhra.
40.08	Jacobabad.
39.83	Panvel.
38.98	Borsad.
38.53	Satara.
38.08	Surat.
37.70	Shikarpur.
36.83	Larkhana.
36.75	Vengurla.
35.86	Sangamner.
35.67	Chopda.
34.92	Kapadvanj.
33.54	Katadgi.
33.46	Yeola.
33.32	Virangam.
33.31	Jambusar.
33.29	Alibag.
33.14	Nasik.
32.31	Barsi.
31.97	Kaira.
31.73	Kalyan.
31.68	Nasirabad.
30.78	Pandharpur.
29.04	Dhulia.
29.95	Ranobennur.
29.08	Gogha.
28.41	Athni.
27.70	Bijapur.
27.50	Hyderabad.
27.22	Poona.
27.05	Karad.
26.70	Junnar.
26.47	Ahmednagar.
25.82	Sukkur.
21.94	Kumta.
20.32	Sholapur.
18.21	Ratnagiri.
17.91	Mahad.
16.67	Karwar.

53. The following table shows the recorded death-rate from all causes in each of the seven cantonments in British Territory during 1898 contrasted with the results of the preceding year :—

Death-rate in cantonments
in British Territory.

Cantonments.	Ratio of deaths per 1,000 of Population.	
	1898.	1897.
Devlali	45.79	29.66
Malegaon	25.01	50.01
Ahmednagar	9.09	33.19
Poona	18.17	70.75
Kirkee	18.77	92.62
Belgaum	88.05	37.17
Ahmedabad... ..	13.14	10.63

In the cantonments of Devlali, Belgaum and Ahmedabad the recorded death-rates in 1898 were higher than in 1897: in the cantonment of Belgaum this was due to plague. In the other cantonments the recorded death-rate was lower than in 1897.

54. The following table shows the vital statistics of the civil population of those cantonments which are situated in *quasi-foreign* territory. The total number of births registered in these cantonments during the year 1898 was 2,613 against 2,807 in 1897, the birth-rate being 24.38 per mille against 26.20 in 1897. The rates at Rajkot, Bhuj, Aden and Mhow are very low :—

Statistics of cantonments
in *quasi-foreign* territory.

Cantonments.	RATIO PER 1,000 OF POPULATION.	
	Birth-rate in 1898.	Birth-rate in 1897.
Aden (Municipal limits)	16.58	17.00
Baroda	34.93	44.90
Bhuj	14.72	37.86
Deesa	30.88	45.43
Mhow	15.56	16.08
Nasirabad	39.80	42.23
Neemuch	33.09	29.23
Rajkot	6.66	.....

55. The total number of deaths in these cantonments during the year 1898 was 3,733 equal to a ratio of 34.83 per mille against 3,971 or 37.04 in 1897. No deaths from cholera were recorded during the year. In 1897 there were 3 deaths recorded from this disease. Small-pox caused 139 deaths, all in the Cantonment of Aden (Municipal limits). In 1897, 176 deaths from small-pox were recorded; of these 173 were in the Cantonment of Aden and the remaining 3 in Deesa.

56. The death-rate of the Baroda Cantonment is very high 64.15: nearly all the deaths are returned under "Other causes". Aden (Municipal limits) 43.15 is also high.

57. There were 45 deaths from plague during the year 1898 and these were reported from the Cantonment of Deesa.

General Population] SANITARY COMMISSIONER FOR THE GOVERNMENT OF BOMBAY. 19
 —Vital Statistics.

Cantonments.	Population according to Census of 1891.	Area in square miles.	Average Population per square mile.	Number of births.	Ratio of births per 1,000 of population.	NUMBER OF DEATHS.							RATIO OF DEATHS PER 1,000 OF POPULATION.							
						Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.	Injuries.	Other Causes.	All Causes.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.	Injuries.	Other Causes.	All Causes.	
Aden { Municipal limits... Purely civil population of cantonments ...	33,423	...	...	637	16.55	...	139	587	149	14	709	16.58	...	3.62	15.28	3.85	36	20.01	43.15	
	162	*5.	...	...	...	...	...	1	2	...	1	4	...	...	0.17	12.34	...	0.17	21.02	
Baroda ...	2,806	1.	2806	98	34.03	...	...	29	4	4	143	180	...	...	10.33	1.43	1.43	50.96	64.15	
Bhuj ...	951	1.04	914.33	14	14.72	...	...	2	...	...	11	13	...	...	2.10	...	...	11.57	13.67	
Deesa ...	8,452	5.	1,690.40	261	30.88	...	...	98	19	3	156	276	...	...	11.59	2.25	35	18.46	32.65	
Mhow ...	21,400	0.50	3,293.35	323	15.50	...	...	45	...	...	4	210	704	...	...	5.32	...	19	9.80	32.90
Nasirabad ...	19,396	8.00	2,424.50	772	39.80	...	...	198	25	...	308	531	...	...	10.21	1.29	...	15.88	27.38	
Neemuch ...	15,291	4.52	3,382.00	506	33.09	...	...	108	...	1	167	366	...	...	12.96	...	07	10.92	23.94	
Rajkot ...	800	Not given.	...	2	0.00	...	...	1	...	...	...	1	...	...	3.33	...	...	...	3.33	
Total ...	107,180	31.06	3,450.74	2,613	24.38	...	139	1,004	199	26	1,765	3,733	...	1.29	14.97	1.86	24	16.47	34.63	
								45				45			42				42	

* This is the area of the whole cantonment, Military and Civil. The population being mixed up with the Military, it is impossible to give the population per square mile.

N. B.—Figures in thick type denote deaths from plague which have been included under "Fever."

SECTION VI.

HISTORY OF CHIEF DISEASES.

CHOLERA.

58. During the year 1898, there was practically no cholera except in the Dhárwár Collectorate, and Sind for the second year in succession was entirely free. There were in all 4,368 deaths recorded compared with 57,109 in 1897, and with three exceptions this is the lowest record during the last 20 years: the year 1897 gave by over 15,000, the highest record during the same period. The ratio per mille was 0·23 as compared with 3·03 for last year and a decennial mean of 1·41. Of the 4,368 deaths no less than 4,054 occurred in the Dhárwár Collectorate. Bombay City gave a few deaths every month, but the total for the year amounted to only 104. As already mentioned Sind was entirely free and 4,054 deaths occurred in the Dhárwár Collectorate, the Poona Collectorate gave one death as did also Ahmedabad Collectorate, the Collectorates of Sátára and Ahmednagar gave 2 each, the Collectorates of Bijápur and Sholápur 3 each, Thána Collectorate 7, Kolába Collectorate 15, Kánara 79 and Belgaum Collectorate 97.

59. In December 1897 there were 121 deaths reported from eight districts. These districts were Sholápur, Khándesh, Ratnágiri, Kánara, Thána, Bombay City, Kolába and Dhárwár.

It is not necessary to follow the disease month by month as, with the exception of the City of Bombay, Belgaum, Dhárwár and Kánara, there were only scattered cases at intervals. The City of Bombay has already been disposed of: Belgaum Collectorate had one case in February and then a few cases every month from May to the end of the year, but the total only amounted to 97: in the Dhárwár Collectorate there were 4,054 deaths and these were spread over every month of the year; the disease increased in April, reached its maximum in August, lingered in September and October and died out in December: in Kánara there were deaths in April and May when more than half the total (79) occurred and the remainder took place in July, August and September.

Statement showing the monthly distribution of deaths from cholera in each Collectorate during the year 1898.

Months.	MEAN FOR 10 YEARS, 1888—1897.		1897.		1898.		Thána.	Bombay City.	Kolába.
	Number of deaths.	Ratio per 1,000 of popula- tion.	Number of deaths.	Ratio per 1,000 of popula- tion.	Number of deaths.	Ratio per 1,000 of popula- tion.			
January	406	0·02	1,225	0·06	113	0·01	1	21	12
February	300	0·02	992	0·05	36	...	...	17	1
March	675	0·04	1,745	0·09	167	0·01	2	12	...
April	2,186	0·11	4,163	0·22	518	0·03	1	8	1
May	5,025	0·07	9,897	0·53	485	0·02	...	8	...
June	5,078	0·26	9,635	0·51	707	0·04	...	3	...
July	6,613	0·35	14,749	0·78	631	0·04	1	12	...
August	4,600	0·24	9,661	0·51	719	0·04	2	3	1
September	1,780	0·09	3,009	0·16	523	0·02	...	8	...
October	1,013	0·16	1,520	0·08	348	0·02	...	5	...
November	581	0·03	392	0·02	89	...	...	3	...
December	421	0·02	121	0·01	32	...	...	4	...
Total	28,678	1·41	57,109	3·03	4,368	0·23	7	104	15

Months.	Ahmed-nagar.	Poona.	Sholapur.	Sátara.	Belgaum.	Dhárwár.	Bijapur.	Kánara.	Ahmed-nbad.
January	...	...	...	...	...	79	...	...	...
February	...	...	...	...	1	16	1	...	...
March	1	...	...	...	...	152	...	...	...
April	...	...	...	...	...	483	...	26	...
May	...	...	...	...	5	450	...	22	...
June	1	...	2	2	18	681	...	...	...
July	...	1	1	...	3	601	1	11	1
August	...	1	...	...	2	697	...	13	...
September	...	...	...	...	9	497	1	8	...
October	...	...	...	...	37	306	...	...	...
November	...	...	...	...	18	68	...	...	...
December	...	...	...	...	4	24	...	...	...
Total ...	2	1	3	2	97	4,064	3	79	1

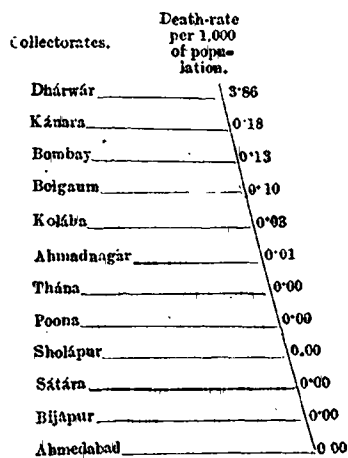
60. The table given below shows the mortality from cholera by seasons :
Mortality by seasons. 2,580 deaths occurred in the rainy season of 122 days ;
1,003 in the hot and dry season of 61 days ; 348 in the
cold season of 121 days and 437 in the hot and damp season of 61 days :—

Years.	COLD SEASON (121 DAYS.)				HOT AND DRY (61 DAYS.)		RAINY SEASON (122 DAYS.)				HOT AND DAMP (61 DAYS.)		Total deaths from cholera.
	Decem-ber (31).	Janu-ary (31).	Febru-ary (28).	March (31).	April (30).	May (31).	June (30).	July (31).	August (31).	Septem-ber (30).	October (31).	Novem-ber (30).	
1897... ..	121	1,226	992	1,746	4,163	9,897	9,635	14,749	9,661	3,000	1,520	892	57,109
1898... ..	32	113	36	167	518	485	707	631	719	523	318	89	4,368

61. The next table shows the total number of deaths from cholera in each of the 20 years ending 1898 :—
Mortality for 20 years from 1879 to 1898 inclusive.

1879	6,937	1889	32,431
1880	684	1890	3,259
1881	16,694	1891	17,850
1882	7,904	1892	42,900
1883	37,954	1893	18,853
1884	13,804	1894	33,588
1885	37,287	1895	8,890
1886	167	1896	35,404
1887	25,711	1897	57,109
1888	36,500	1898	4,368

62. The following diagram exhibits the death-rate from cholera per mille in the affected Collectorates arranged in order of highest death-rate :—
Death-rates by Collectorates.



The death-rates except in Dhárwár are very low.

63. Out of 220 rural circles 27 were affected by cholera during the year. In 18 of these the death-rate was below 1 per 1,000 of population. The table given below shows in order of highest death-rate the rural circles in which the death-rate from cholera exceeded 1 per 1,000 of population. As already mentioned, the disease was almost exclusively confined to Dhárwár. Out of 13 talukas of this collectorate 8 were affected :—

Number in sequence.	Name of Rural Circle.	Name of Collectorate.	Population of the Circle.	Number of Cholera Deaths.	Ratio per 1,000 of Population.
1	Karajgi Rural Circle...	Dhárwár ...	90,199	733	8.13
2	Hángal "	" ...	74,506	591	7.93
3	Gadag "	" ...	65,584	431	6.57
4	Navalgund "	" ...	76,538	455	5.94
5	Ránebennur "	" ...	79,214	395	4.99
6	Mundargi Petha "	" ...	85,229	166	4.71
7	Kod "	" ...	84,427	397	4.70
8	Bankápur "	" ...	85,602	364	4.25
9	Mundgod "	Kánara ...	16,063	48	2.99

64. Out of 56 town circles 14 were affected during the year. Of these, 7 had only one death each and 2 had two each. The following table gives the number of deaths from cholera in the remaining 5 towns in which cholera appeared and also the death-rate per mille in them :—

No.	Towns.	Collectorate.	Population.	Number of Cholera deaths.	Ratio per 1,000 of population.
1	Gadag T. C. ...	Dhárwár ...	23,821	342	14.36
2	Ránebennur "	" ...	13,756	31	2.25
3	Dhárwár "	" ...	32,583	24	0.74
4	Hubli "	" ...	52,194	18	0.34
5	Panvel "	Kolába ...	10,417	6	0.58

65. There was no cholera in any of the Cantonments.

66. Out of 7,751 villages in the districts affected by cholera, 324 or 4.18 per cent, were affected during the year. The highest percentage (21.80) took place in the Dhárwár Collectorate, where out of 1,303 villages 284 were affected. In the Collectorate of Belgaum the percentage was 1.77, while in the remaining affected Collectorates the percentages were below 1 per cent.

67. The following table shows the percentages of affected villages to total villages in each Collectorate :—

Collectorate.	Total villages.	Villages affected by cholera.	Percentages of affected villages to total villages.
Thána ...	1,626	3	0.18
Kolába ...	1,466	3	0.20
Belgaum ...	1,076	19	1.77
Dhárwár ...	1,303	284	21.80
Bijápur ...	1,112	4	0.36
Kánara ...	1,185	11	0.93
Total ...	7,768	324	4.17

Collectorates in which cholera first appeared in towns and those in which it first appeared in villages.

63. The following table shows the Collectorates in which cholera first appeared in towns, and those in which it first appeared in villages :—

COLLECTORATES IN WHICH CHOLERA FIRST APPEARED IN TOWNS AND CANTONMENT.			COLLECTORATES IN WHICH CHOLERA FIRST APPEARED IN VILLAGES.		
Collectorates.	Towns and Cantonment.	Date of first appearance.	Collectorates.	Villages.	Date of first appearance.
Bombay ...	Bombay City ...	1st January 1898...	Thána ...	Nariwale ...	1st January 1898.
Ahmednagar ...	Ahmednagar ...	2nd March 1898 ...	Folaba ...	Saswane ...	4th " "
Sholapur ...	Sholapur ...	2nd June 1898 ...	Dhárwár ...	Karajgi ...	2nd " "
Sátára ...	Karád ...	Do. ...	Bijápur ...	Mudkavi ...	10th February 1898.
Ahmedabad ...	Ahmedabad ...	13th July 1898 ...	Belgaum ...	Parashwad ...	21st " "
Poona ...	Poona ...	17th August 1898 ...	Kánara ...	Wadgeri ...	7th April "

69. The table given below shows the number of attacks and deaths and the percentages of deaths to attacks in each affected collectorate :—

Collectorate.	Attacks.	Deaths.	Percentages of attacks to deaths.
Thána ...	7	7	100.
Bombay City ...	111	104	93.69
Kolába ...	13	15	100.
Ahmednagar ...	2	2	100.
Poona ...	1	1	100.
Sholapur ...	3	3	100.
Sátára ...	2	2	100.
Belgaum ...	143	97	67.83
Dhárwár ...	6,788	4,054	59.72
Bijápur ...	5	3	60.
Kánara ...	113	79	69.91
Ahmedabad ...	1	1	100.
Total ...	7,189	4,368	60.75

70. The statement appended to the cholera map contains the name of each district affected, the name and number of each circle, its population, the date of first and last case, the total cholera deaths, their ratios per 10,000 of population, the period of maximum intensity, the number of villages in each circle and the number affected and free from the disease :—

1	2	3	4	5	6	7	8	9		10	11	
Collectorate.	Number of Circle.	Name of Circle.	Popu- lation.	Date of first case of Cholera in the Circle during the year.	Date of last case of Cholera in the Circle during the year.	Total deaths from Cholera in the Circle during the year.	Ratio per 10,000.	PERIOD OF MAXIMUM INTENSITY OF THE DISEASE.		Number of Villages in each of the Rural Circle.	NUMBER OF THOSE	
								From	To		Affected by	Not affected by
Thána ...	1	Kalyán R.C....	67,497	1st Jan. 1898	1st Jan. 1898	1	0.15	Jan. 1898	Jan. 1898	224	1	223
	2	Sásette " "	108,664	5th Mar. "	7th Aug. "	5	0.46	March "	August "	122	2	120
	3	Thána T.C....	17,455	28th April "	28th April "	1	0.57	April "	April "	...	...	...
Bombay City ...	4	Bombay City ...	806,144	1st Jan. 1898	24th Dec. 1898	104	1.29	Jan. 1898	Jan. 1898	...	...	...
Kolába ...	5	Panvel R.C....	97,415	4th Jan. 1898	4th Jan. 1898	4	0.41	Jan. 1898	Jan. 1898	220	1	119
	6	Alibág " "	72,235	23rd " "	23rd Jan. "	4	0.55	" "	" "	175	1	174
	7	Karjat " "	85,238	21st Aug. "	21st Aug. "	1	0.12	August "	August "	265	1	264
	8	Panvel T.C....	10,417	7th Jan. "	26th April "	6	5.76	Jan. "	Jan. "	...	...	...
Ahmednagar ...	9	Ahmednagar T.C....	36,031	2nd Mar. 1898	22nd June 1898	2	0.56	March 1898	June 1898	...	...	...
Poona ...	10	Poona T.C....	118,657	17th Aug. 1898	17th Aug. 1898	1	0.08	August 1898	August 1898	...	...	...
Sholapur ...	11	Sholapur T.C....	61,564	2nd June 1898	2nd June 1898	2	0.32	June 1898	June 1898	...	...	...
	12	Pandharpur " "	19,953	2nd July "	2nd July "	1	0.50	July "	July "	...	...	...
Sátára ...	13	Sátára T.C....	25,748	22nd June 1898	22nd June 1898	1	0.39	June 1898	June 1898	...	...	...
	14	Karád " "	12,035	2nd " "	2nd " "	1	0.83	" "	" "	...	...	...
Belgaum ...	15	Belgaum R.C....	106,308	1st June 1898	1st June 1898	13	1.22	June 1898	June 1898	200	1	199
	16	Khanápur " "	85,577	21st Feb. "	17th Aug. "	14	1.64	" "	" "	217	5	212
	17	Parasgad " "	110,582	15th Aug. "	30th Dec. "	67	6.59	Oct. "	Oct. "	125	10	115
	18	Sampgaon " "	137,631	2nd Oct. "	2nd Oct. "	2	0.15	" "	" "	81	2	79
	19	Gokák " "	106,434	1st Sept. "	1st Sept. "	1	0.09	Sept. "	Sept. "	113	1	112

1	2	3	4	5	6	7	8	9		10	11	
Collectorate.	Number of Circle.	Name of Circle.	Population.	Date of first case of Cholera in the Circle during the year.	Date of last case of Cholera in the Circle during the year.	Total deaths from Cholera in the Circle during the year.	Ratio per 10,000.	PERIOD OF MAXIMUM INTENSITY OF THE DISEASE.		Number of Villages in each of the Rural Circle.	NUMBER OF THOSE	
								From	To		Affected by	Not affected by
Dhárwār ...	20	Dhárwār R.C....	72,478	23rd Sept. 1898	10th Oct. 1898	22	3.04	Oct. 1898	Oct. 1898	79	5	74
	21	Hubli	65,584	16th April	22nd Aug. "	32	4.88	August "	Aug. "	69	7	62
	22	Navalgund	76,538	6th June	13th Dec. "	455	59.45	Oct. "	Oct. "	57	16	41
	23	Gadag	65,584	27th April	29th Oct. "	431	65.72	July "	July "	57	33	24
	24	Mundargi	35,229	23rd May	18th Sept. "	166	47.12	August "	August "	42	24	18
	25	Kaighatgi	55,560	13th July	30th Oct. "	31	5.60	" "	" "	105	4	101
	26	Bankapur	85,602	26th May	7th Sept. "	364	42.52	June "	June "	143	28	115
	27	Ron	92,365	30th July	30th Oct. "	22	2.38	August "	August "	86	8	78
	28	Karajgi	90,199	2nd Jan.	1st Dec. "	733	81.26	May "	June "	130	57	73
	29	Hāngal	74,506	7th Feb.	21st Nov. "	591	79.32	June "	" "	160	41	119
	30	Ranebennur	79,214	29th Mar.	20th "	395	49.87	April "	May "	116	35	81
	31	Kod	84,427	11th Jan.	16th Oct. "	397	47.02	" "	April "	177	26	151
	32	Dhárwār T.C....	32,583	23rd May	11th Nov. "	24	7.37	August "	August "	...	...	...
	33	Hubli	52,194	1st Feb.	13th May "	18	3.45	April "	April "	...	...	...
	34	Gadag Bettigiri	23,821	26th May	26th Oct. "	342	143.57	July "	July "	...	...	...
	35	Ranebennur T.C....	13,756	27th Mar.	8th Nov. "	31	22.54	April "	April "	...	...	...
Bijapur ...	36	Bijapur R.C....	87,026	27th Mar. 1898	27th Mar. 1898	..	...	March 1898	March 1898	92	1	91
	37	Bāgalkot	114,402	22nd July	4th Nov. "	2	0.17	July	Sept. "	157	2	155
	38	Badāmi	100,605	10th Feb.	10th Feb. "	1	0.10	Feb.	Feb. "	168	1	167
Kānara ...	39	Sirāl R.C....	63,034	12th April 1898	17th Aug. 1898	23	3.65	April 1898	April 1898	233	3	230
	40	Siddāpur	39,080	28th Aug.	5th Sept. "	7	1.87	Sept.	Sept. "	167	1	166
	41	Mundgod Petha	16,063	7th April	5th Oct. "	48	29.88	April	May "	68	7	61
	42	Kārwār T.C....	14,515	8th May	13th May "	1	0.09	May	" "	...	...	...
Ahmedabad ...	43	Ahmedabad T.C....	144,192	13th July 1898	13th July 1898	1	0.07	July 1898	July 1898	...	...	...

71. The map illustrates the distribution and mortality from cholera in the different collectorates in which the disease was present. As usual, a statement is embodied for easy

reference, showing the area, population, density per square mile, number of registration circles and villages of each district; also the number of villages affected by cholera, deaths from different causes, birth and death ratio per mille and dates of the first and last cases of cholera. The map has also been coloured in different shades of brown, as a high or low death-rate occurred in the affected districts.

Tabular statements showing cholera deaths and meteorological conditions.

72. The statements in Appendix III show the daily recorded deaths from cholera and the daily meteorological conditions observed at the nearest observatory.

SMALL-POX.

Small-pox mortality.

73. There were 1,834 deaths from small-pox (946 males and 888 females) against 3,835 in 1897 and a decennial mean of 3,720.

Small-pox deaths since 1887.

74. The number of deaths registered under this head since 1887 is as follows:—

Year.	Number of Deaths.	Year.	Number of Deaths.
1887	3,753	1893	3,567
1888	3,617	1894	3,155
1889	7,066	1895	2,229
1890	2,877	1896	6,443
1891	1,491	1897	3,835
1892	2,770	1898	1,834
Total	21,574	Total	21,063

[illegible]

STATEMENT SHOWING VITAL STATISTICS &c. IN EACH COLLECTORATE DURING 1898

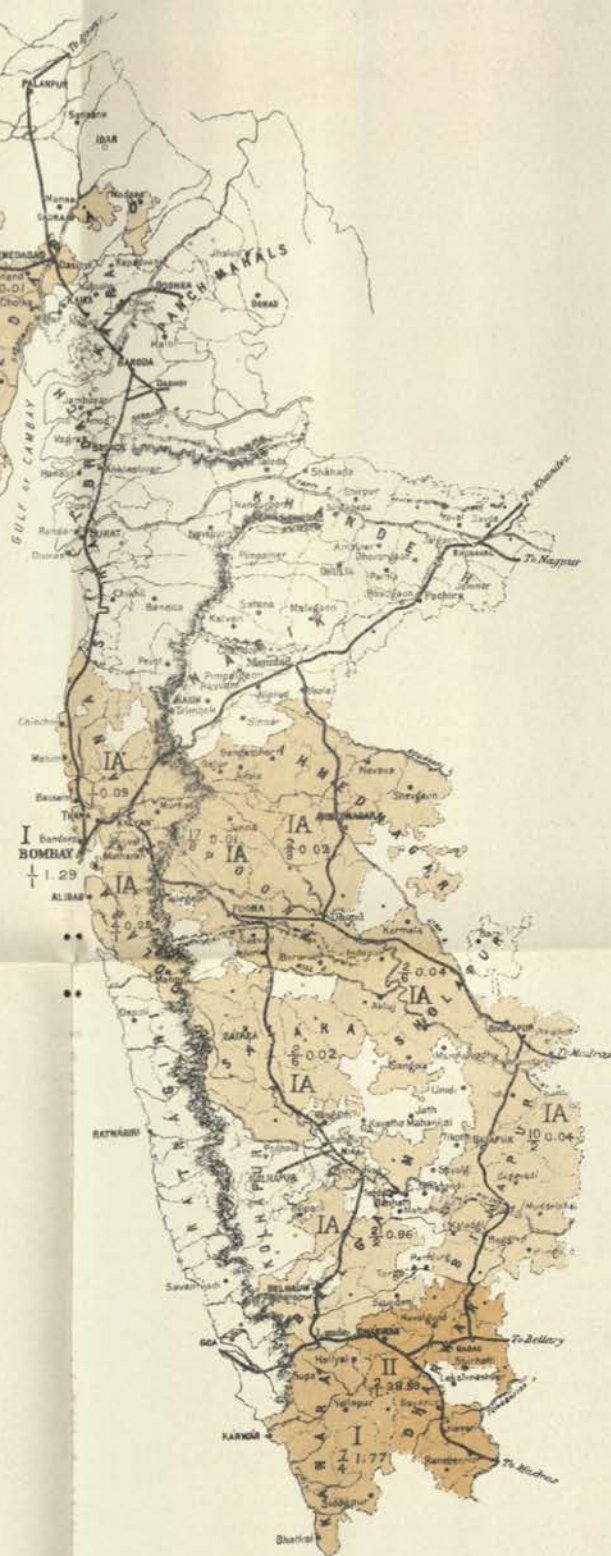
Regimental Districts	Collectorates	Area in Square miles	Population	Average population per Square mile	Order of Registration			Number of Villages	Number of deaths recorded during the year from							Rate per 1000 of population	Deaths due to cholera of population	Date of first case of Cholera	Date of last case of Cholera		
					From	Quadrants	Total		Children	Smallpox	Poor	Secondary & Quarantine	Typhoid	Other causes	Total						
1	Ahmednagar	3846	146235	146.85	4	21	2894	1	618	17234	8294	480	14641	41471	40.74	28.47					
2	Amravati	3940	84103	112.19	2	22	12	18	1648	169	11551	5312	234	2654	21351	37.92	37.22				
3	Belgaon	3583	83807	234.71	2	2	9	11	1624	63	15521	7892	414	4521	23218	50.77	29.94	1.1.98	2.8.98		
4	Bombay City	22	806144	36647.45	1	1	1	1	1	104	55	22515	8810	540	3583	15117	13.04	6.4.98	31.8.98		
5	Kolaba	2161	52472	242.36	1	1	8	1	7463	3	16	3	7437	1740	230	4631	14063	32.04	21.8.98	21.8.98	
6	Amravati	6666	88716	133.16	2	1	1	1	1	1	70	14978	4104	245	4821	24228	29.70	22.82	17.8.98	17.8.98	
7	Solapur	7521	75258	100.19	3	12	15	15	1348	3	157	7245	4905	286	3246	15644	20.75	17.14	22.8.98	22.8.98	
8	Satara	4988	78201	156.89	3	12	15	15	1348	2	22	14081	6327	450	11027	32840	25.47	26.83	22.8.98	22.8.98	
9	Dhule	3922	110502	281.36	2	8	10	10	1308	1	13	1508	3641	502	389	2121	24.62	19.85			
10	Jalgaon	7677	101143	131.75	3	7	11	11	1072	13	38	19721	5167	373	17465	47235	33.49	47.77	21.8.98	21.8.98	
11	Dahanu	4535	106033	233.65	4	13	17	17	1239	299	4054	771	33674	3791	33	21048	67035	34.85	50.61	2.1.98	12.1.98
12	Rajapur	5797	176256	303.32	2	7	10	10	1110	4	8	30	1064	1906	221	5375	13805	27.38	33.38	12.1.98	4.1.98
13	Bandra	3911	91618	234.28	2	7	12	12	1148	11	78	107	1	484	4284	1768	23.70	29.88	7.1.98	7.1.98	
14	Surat	1602	64624	403.39	2	6	8	8	901	1	1	1	1	1	1	1	1	1	1	1	1
15	Broach	1442	31140	215.00	2	6	8	8	901	1	1	1	1	1	1	1	1	1	1	1	1
16	Anra	1808	87127	481.66	2	7	11	11	578	1	1	1	1	1	1	1	1	1	1	1	1
17	Panaji Mahals	1613	39381	244.28	2	7	5	5	659	1	1	1	1	1	1	1	1	1	1	1	1
18	Ahmedabad	3821	312188	81.68	2	7	12	12	852	1	1	1	1	1	1	1	1	1	1	1	1
19	Kutch	14155	56103	39.67	1	14	15	15	791	14	967	430	263	1022	2241	16.75	23.09				
20	Bhuj	8465	23208	27.41	1	18	14	14	1303	2	787	430	346	1129	9768	16.76	17.04				
21	Sukrapur	9277	50508	54.44	3	16	17	17	1163	16801	276	366	1626	16772	26.74	19.39					
22	Thar & Parhar	12290	33240	27.05	4	7	8	8	250	61	400	24	164	213	4667	24.64	24.64				
23	Upper Sind Frontier	2863	17463	60.94	1	4	5	5	354	7	2700	1	70	1407	26.58	17.29					
Total for Presidency		121431	1482088	122.05	367	220	283	283	27148	342	1363	1084	307816	56789	6584	17693	546525	36.94	29.16	1.1.98	21.12.98

SKETCH MAP
TO ILLUSTRATE THE
DISTRIBUTION OF AND COMPARATIVE MORTALITY
from
CHOLERA
in the
DIFFERENT COLLECTORATES
OF THE PRESIDENCY OF BOMBAY
During the Year
1898.

Scale of Miles
0 20 40 60 80 100 120 140 160 180 200

REFERENCES
IA Indicator Deaths below 1 per 10,000 of population.
I Do. from 1 to 10. Do.
II Do. 30 to 40. Do.

N.B. 1. The Decimal figures show the Mortality from Cholera per 10,000 of Population.
2. The fractional figures to the left of Decimal figures indicate the date of the first case in each District.



Deaths by districts and collectorates.

75. The following table shows the deaths during 1898 arranged according to Registration Districts and Collectorates:—

Districts.	No.	Collectorates.	Population according to Census of 1891.	DEATHS FROM SMALL-POX.					
				Mean for 10 years from 1888 to 1897.	Ratio per 1,000 of Population.	1897.	Ratio per 1,000 of Population.	1898.	Ratio per 1,000 of Population.
Western Registration District.	1	Khândesh...	1,460,319	569	0.41	1,136	0.78	618	0.42
	2	Násik ...	841,087	299	0.37	188	0.22	189	0.22
	3	Thána ...	818,967	235	0.29	35	0.04	63	0.07
	4	Bombay ...	806,114	333	0.42	62	0.08	55	0.07
	5	Kolaba ...	594,779	145	0.25	24	0.04	3	0.00
Central Registration District.	6	Ahmednagar ...	887,656	92	0.11	175	0.19	140	0.16
	7	Poona ...	1,061,449	221	0.22	143	0.13	76	0.07
	8	Sholápur ...	750,255	93	0.13	181	0.24	157	0.21
	9	Sátára ...	1,225,511	72	0.06	47	0.04	23	0.02
	10	Ratnágiri ...	1,105,862	186	0.17	16	0.01	...	...
Southern Registration District.	11	Belgaum ...	1,011,453	127	0.13	63	0.06	38	0.04
	12	Dharwár ...	1,050,533	267	0.27	310	0.29	171	0.16
	13	Bijápur ...	796,986	128	0.17	27	0.03	99	0.12
	14	Kánara ...	446,156	85	0.19	11	0.02	107	0.24
	15	Surat ...	649,824	107	0.17	59	0.09	1	0.00
Gujarát Registration District.	16	Broach ...	341,450	87	0.26	34	1.13	...	...
	17	Kaira ...	871,529	45	0.05	12	0.01	1	0.00
	18	Panch Maháls ...	313,381	38	0.13	9	0.03	1	0.00
	19	Ahmedabad ...	920,928	62	0.07	40	0.04	7	0.01
	20	Karáchi ...	561,013	168	0.31	241	0.43	14	0.02
Sind Registration District.	21	Hyderabad ...	883,836	173	0.20	74	0.08	3	0.00
	22	Thar and Párkar ...	332,401	65	0.22	337	1.01	61	0.18
	23	Shikárpur ...	915,058	104	0.12	210	0.23	...	...
	24	Upper Sind Frontier ...	174,469	19	0.12	51	0.29	7	0.04

Abstract.

Western Registration District	...	4,521,296	1,581	0.36	1,445	0.32	928	0.21
Central do. do.	...	5,030,733	664	0.14	562	0.11	396	0.08
Southern do. do.	...	3,304,428	607	0.19	411	0.12	415	0.13
Gujarát do. do.	...	3,097,112	339	0.11	504	0.16	10	0.00
Sind do. do.	...	2,866,777	529	0.19	913	0.32	85	0.03
Total	...	18,820,346	3,720	0.21	3,835	0.20	1,834	0.10

The deaths from small-pox (1,834) during the year was the lowest record with one exception during the last twelve years. The Western Registration District was the most affected, after it came the Southern and Central Registration Districts, Sind was very slightly affected, and the Gujarát Registration District gave only 10 deaths. The deaths were 2,001 less than in the previous year and the ratio per mille was 0.10 against 0.20 last year and 0.21, the decennial mean. These figures may be considered very satisfactory and they testify to the exceedingly good vaccination work which now for some years has been done in the Presidency. After the experience of the famine year of 1877 and the following year when 27,369 and 4,475 deaths from small-pox were recorded, it is very satisfactory to be able to state, that, notwithstanding much better registration, the famine year of 1897 and the following year gave only 3,835 and 1,834 deaths from the same disease. This result is chiefly to be attributed to the progress vaccination work has made since the former period.

As regards Collectorates there was an increase in Násik and Thána in the Western and Bijápur and Kánara in the Southern Registration Districts. The highest death-rate 0.42 occurred in Khândesh and the lowest 0.01 in Ahmedabad. There was only one death in each of the following Collectorates:—Surat, Kaira and Panch Maháls: Ratnágiri, Broach and Shikárpur were entirely free.

76. In the following table these deaths are shown by ages and months, the latter being contrasted with the corresponding months of 1897 and with the mean of the previous five years. In 1898, 27.59 per cent. of these deaths occurred amongst infants under one

year of age, whilst 51·69 per cent. took place among children over 1 and under 10, the remaining 20·72 being among persons over 10 years of age :—

		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Total deaths from small-pox in each month.	{ 5 years' mean ...	303	459	747	773	538	310	179	106	63	67	107	208	3,860
	{ 1897... ..	378	676	952	775	384	196	108	73	37	53	43	167	3,335
	{ 1898... ..	264	408	435	280	111	67	63	39	44	36	40	52	1,584
	{ 1899... ..	88	130	213	221	149	81	44	25	18	22	38	62	1,079
Deaths under one year ...	{ 5 years' mean ...	104	188	299	266	135	48	24	16	6	5	5	34	1,130
	{ 1897... ..	104	188	299	266	135	48	24	16	6	5	5	34	1,130
	{ 1898... ..	75	114	142	61	33	14	16	6	7	8	13	17	508
	{ 1899... ..	158	242	387	397	262	145	91	54	30	30	54	121	1,971
Above 1 and under 10 years ...	{ 5 years' mean ...	167	341	478	558	159	78	31	24	16	26	22	99	1,779
	{ 1897... ..	167	341	478	558	159	78	31	24	16	26	22	99	1,779
	{ 1898... ..	164	193	215	150	63	30	35	20	27	30	16	25	943
	{ 1899... ..	67	87	147	155	137	84	44	27	15	15	17	35	810
Above 10 years ...	{ 5 years' mean ...	107	147	175	171	90	60	51	33	15	27	16	34	926
	{ 1897... ..	107	147	175	171	90	60	51	33	15	27	16	34	926
	{ 1898... ..	25	96	78	69	25	23	12	13	10	8	11	10	350
	{ 1899... ..	25	96	78	69	25	23	12	13	10	8	11	10	350

77. During December 1897, 167 deaths were registered throughout the Presidency. In January 1898 the number rose to 264, and the disease reached its maximum intensity (435) in March, after which date it commenced to decline, and the minimum (36) was registered in October, but in November the number rose to (40) and in December increased to (52).

Fever.

78. There were 302,515 deaths registered under the heading "fever"—161,213 males and 141,302 females. This shows a decrease of 150,081 as compared with the previous year: the decennial mean is 384,710.

The above figures include deaths from plague, excluding this disease there were 216,324 deaths ascribed to fever as compared with 405,652 in the previous year, and a decennial mean of 379,806.

79. The number of deaths registered from fever since 1887. In each year since 1887 is as follows:—

Years.	Number of deaths from fever.	Years.	Number of deaths from fever.
1887	308,722	1893	361,160
1888	304,449	1894	429,094
1889	346,878	1895	388,848
1890	344,897	1896	412,229
			2,086
1891	368,913	1897	452,596
			46,944
1892	438,038	1898	302,515
			86,191
Total ...	2,111,897	Total ...	2,346,442
Mean ...	351,988	Mean ...	391,074

Note.—The deaths registered as due to plague are included in deaths due to fever both for this and the past years. Figures in thick type denote deaths from plague.

With the agency at our disposal for the registration of deaths, and in a country where so many diseases are by the people called fever, it is inevitable that many diseases must be returned under the head of "fever" which do not rightly belong to this heading. This has always been the case, and although these fever deaths cannot be relied on as being all due to fever, they can, when taken for a number of successive years, give an indication as to the prevalence or otherwise of the common fevers of the country.

The carrying out of plague measures in some of the Towns of the Presidency has led to very much more accurate registration in them. Some

Municipalities are, I think, improving in this respect, and it is to be hoped that this may continue and that in time it may be possible not only to obtain more accurate registration, but to add to the headings at present in use.

Deaths by Districts and 80. In the following table these deaths are
Collectorates. shown by districts and collectorates:—

Districts.	No.	Collectorates.	Population according to Census of 1891.	DEATHS FROM FEVER.					
				Mean for ten years from 1888 to 1897.	Ratio per 1,000 of Population.	1897.	Ratio per 1,000 of Population.	1898.	Ratio per 1,000 of Population.
Western Registration District.	1	Khândesh	1,460,319	36,835	26.44	43,137	29.54	17,234	11.80
	2	Násik	841,087	21,383	25.98	76 26,853	31.93	230 11,551	13.73
	3	Thána	818,967	16,389	20.10	1,075 20,529	25.07	1,951 15,237	18.61
	4	Bombay... ..	806,144	8,914	11.20	4,156 26,887	33.35	3,235 22,215	27.56
	5	Kolába	594,779	10,051	17.90	10,237 12,158	20.44	18,130 7,437	12.50
Central Registration District.	6	Ahmednagar	887,656	19,914	23.52	1,309 17,173	19.35	654 4,191	4.72
	7	Poona	1,061,449	22,292	22.00	386 34,205	32.22	333 14,979	14.11
	8	Sholápur	750,255	16,803	24.01	8,871 18,771	25.02	1,355 7,245	9.66
	9	Sátara	1,225,511	28,599	24.31	2,353 39,394	32.15	1,557 14,981	12.22
	10	Ratnágiri	1,105,862	13,109	12.21	10,031 17,638	15.95	6,918 13,979	12.64
Southern Registration District.	11	Belgaum	1,011,453	14,640	16.14	26 15,869	15.69	374 19,121	18.90
	12	Dhárwár	1,050,533	18,179	18.17	444 20,464	19.48	16,301 38,674	36.81
	13	Bijápur	796,236	13,610	18.17	38 20,271	25.46	27,764 7,554	9.49
	14	Kanára	446,156	7,183	16.37	3 8,176	18.33	979 6,340	14.21
	15	Surat	649,824	16,579	25.94	... 15,650	24.08	59 10,403	16.01
Gujarát Registration District.	16	Broach	341,450	11,071	32.84	3,070 9,159	26.82	2,552 9,588	28.08
	17	Kaira	871,629	24,053	28.26	9 19,330	22.18	424 15,059	17.28
	18	Panch Maháls	318,381	6,789	22.94	3 6,179	19.72	445 7,684	24.52
	19	Ahmedabad	920,928	27,051	30.01	... 20,077	21.80	201 18,662	20.26
	20	Karáchi... ..	561,013	10,270	19.15	65 13,590	24.22	6 9,616	17.14
Sind Registration District.	21	Hyderabad	883,836	13,375	15.83	3,572 11,967	13.54	2,722 7,781	8.80
	22	Thar and Párkár	332,401	4,923	16.76	499 5,865	17.64	1 4,403	13.25
	23	Shikárpur	915,058	19,787	22.07	2 25,465	27.83	... 15,801	17.27
	24	Upper Sind Frontier	174,469	2,911	18.27	716 3,789	21.71	... 2,780	15.93
	24	Upper Sind Frontier	174,469	2,911	18.27	3 3,789	21.71	... 2,780	15.93

Abstract.

Western Registration District	4,521,296	93,572	21.31	129,564	28.66	73,674	16.29
Central do. do.	5,030,733	100,717	20.94	16,853	25.28	24,200	11.01
Southern do. do.	3,304,428	53,612	16.99	21,667	19.60	10,537	21.69
Gujarát do. do.	3,097,112	85,543	28.27	64,780	22.73	45,103	19.81
Sind do. do.	2,866,777	51,266	18.77	485	21.16	61,396	14.09
				70,395		3,628	
				3,147		40,381	
				60,676		2,723	
				4,792			
Total	18,820,346	384,710	21.24	452,596	24.05	302,515	16.07
				46,344		86,191	

Note.—Deaths registered as due to plague are shown in thick type but are included in the deaths from fever.

The death-rate under the heading "fever" was 16·07 per mille compared with 24·05 for the previous year, and a decennial mean of 21·24, and this notwithstanding the fact that deaths from plague are included under the heading. In only one district was the rate higher than the rate last year and the decennial mean, and that was in the Southern Registration District, and was undoubtedly due to a high mortality from plague in the Collectorates of Dhárwár and Belgaum—in all the other districts it was exceptionally low especially in the Central.

If it had not been for the large number of plague deaths, the rate for the Presidency would have been very much lower. For the Western Registration District, the rate was very much increased by the large number of plague deaths in Bombay. The rate in Ahmednagar Collectorate was very low, and is more than one quarter below the decennial rate. This would almost lead one to suppose that deaths usually registered under "fever" are being entered under some other head, but the rates under "dysentery and diarrhoea" and "other causes" under which cases would fall if excluded from "fever" are in the former only very slightly increased and in the latter although doubled do not show a greater increase than in a great many other Collectorates whose decreases under "fever" are not nearly so great as in Ahmednagar.

There was a rise in all districts in the number of deaths returned under "other causes," but even if the increases were added to the "fevers" it would not, except in the case of the Southern Registration District, make any of them over the decennial mean, and considering this and the low rate under "fever" and the fact that a large number of plague deaths are included, it may be taken that, as regards the common fevers of the country, the year was a healthy one, and, also, that no disease which would be likely to be returned under the heading "fever", except plague, was at all widely distributed or fatal.

81. The table in the margin shows the monthly distribution of the deaths

Deaths by month.			
Months.	Mean for ten years from 1888 to 1899.	1897.	1898.
January ...	34,132	37,462 3,210	28,108 6,203
February ...	29,564	36,087 5,580	24,226 6,811
March ...	32,663	37,363 6,640	25,264 6,651
April ...	32,265	34,647 5,243	20,242 3,773
May ...	29,127	31,029 1,326	18,075 2,759
June ...	26,466	31,018 228	15,200 1,003
July ...	30,397	36,752 338	17,626 2,490
August ...	34,088	44,547 1,923	23,158 6,515
September ...	32,203	42,014 3,116	27,985 10,952
October ...	33,449	43,449 5,774	36,640 17,227
November ...	35,575	43,625 7,521	36,415 13,777
December ...	34,780	34,603 6,045	29,576 8,030
Total ...	384,709	452,596 46,944	302,515 86,191

ascribed to fever as compared with the mean and with the corresponding months of the previous year. In spite of the nearly double increase in the plague mortality the number of deaths in each month during the year is less than in the corresponding month of the previous year, and, excepting October and November, is less than the decennial mean. In June the lowest mortality for the year was as usual reported, and in July a rise took place which reached its maximum in October: November gave nearly the same number of deaths as October, but in December there was a decided fall. Excluding plague deaths the number every month was considerably less than the corresponding months of last year and of the decennial mean, and except that the numbers were very low the monthly variations as compared with the decennial mean were normal.

82. It is proposed that in the next report plague deaths should be shown separately from fever in a sub-section under Section VI "History of Chief Diseases".

MONTHLY RAINFALL FOR THE YEAR 1898.

[The average is that of 11 years (1887-1897).]

	January.		February.		March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total,			Total.	Remarks.
	1898.		Average												1897.				
	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	I. cts.	
Khândesh— Dhulia ...	...	0 25	...	...	...	...	3 59	6 2'	3 41	7 19	...	0 30	...	21 3	26 22	30 64			
Nâsik— Nâsik ...	...	0 90	...	...	...	...	3 55	9 90	4 81	7 79	0 5	0 11	0 42	27 59	30 6	29 46			
Ahmednagar— Ahmednagar ...	...	0 1	0 2	0 13	0 26	...	2 65	2 64	0 55	8 6	0 30	0 2	0 14	14 78	23 68	19 23			
Poona— Poona ...	...	0 12	0 6	0 47	0 14	...	4 79	6 2	1 85	7 42	1 8	0 56	0 23	22 92	35 10	37 19			
Sholâpur— Sholâpur ...	...	0 32	...	0 19	0 42	...	6 49	6 44	3 0	14 70	2 82	0 39	0 3	34 85	28 53	20 42			
Sâtâra— Sâtâra ...	...	0 39	0 26	2 80	0 86	...	7 95	10 87	3 50	5 57	3 01	0 10	0 15	35 97	44 03	46 01			
Belgaum— Belgaum ...	...	0 5	1 53	3 45	3 34	...	9 30	16 48	3 0	10 45	3 89	1 2	0 27	52 79	51 36	46 29			
Bijâpur— Bijâpur ...	...	0 35	0 22	1 55	0 78	...	3 24	1 65	1 21	7 39	6 72	2 95	...	26 8	25 63	28 47			
Dhârwar— Dhârwar ...	...	0 43	1 50	2 37	3 39	...	6 08	8 30	1 32	9 36	6 42	2 5	0 13	41 95	33 74	41 24			
Kânara - Kârwar ...	...	0 37	...	0 59	0 40	...	41 16	39 13	19 90	27 77	8 77	2 55	0 11	133 75	122 57	129 75			
Ratnâgiri— Râtnâgiri ...	...	0 49	...	0 37	0 27	...	44 59	45 41	11 38	14 52	1 83	0 11	...	118 97	101 97	136 16			
Kolâba— Alibâg ...	...	0 30	...	...	0 10	...	32 7	32 45	11 31	24 38	0 61	0 20	...	101 48	94 49	101 2			
Thâna— Thâna ...	...	0 40	...	...	...	...	25 26	43 52	13 00	18 41	0 15	1 90	...	108 30	105 93	121 17			
Surat— Surat ...	...	1 68	...	...	...	...	12 39	13 8	1 74	4 47	...	0 13	0 3	32 52	46 2	39 2			
Broach— Broach ...	...	1 18	...	...	...	...	12 32	25 1	2 81	6 4	...	0 2	0 13	47 51	42 78	42 34			
Kaira— Kaira ...	...	0 46	...	0 2	0 2	...	6 54	15 46	4 41	7 57	...	...	0 15	34 63	37 48	24 7			
Panch Mahâls— Godhra ...	...	0 98	...	...	0 7	...	5 25	23 67	9 9	4 3	...	...	0 40	43 49	40 85	36 1			
Ahmedabad— Ahmedabad ...	...	0 76	...	...	...	...	7 14	15 93	3 31	8 87	...	...	0 49	36 53	32 29	31 18			

83. The meteorology of 1898 was somewhat like that of 1897, although the rainfall was not so heavy it was up to the average and fairly uniformly distributed.

January.—There was no rain.

February and March.—Very light scattered showers.

April and May.—There was rain in all districts and it was rather heavy and exceeded the normal amount in the districts of Sátára, Belgaum, Bijápur, Dhárwár and Kánara; the rainfall was from 3 to 6 inches in each of the above named districts in each month.

June.—The monsoon broke early in the first week (3rd) of the month on the Kánára Coast in the Deccan, the month's rain was up to or above the average, but below the average in the eastern portion, except in the táluka of Sholápur; most of the rain fell in the second and third weeks and in the last two days. In the Karnátak rain fell generally up to or above the average; in the western and central tálukas of Dhárwár and Belgaum it fell mostly in the first three weeks. In the Konkan and Guzarát the rainfall generally exceeded the average.

July.—In the Deccan the rainfall was in defect of the average in parts of Khándesh, Sátára, Ahmednagar, and the eastern portion of Poona; elsewhere it either reached the average standard or exceeded it. In the Karnátak in the western portion of Dhárwár and Belgaum, light but continuous rain fell almost throughout the month.

The month's rain in the Konkan and Guzarát was above the average except in Surat and in parts of Ahmedabad.

August.—In the Deccan the rainfall was generally below the average. In the Karnátak in the western tálukas of Belgaum and Dhárwár some rain fell

during the first fortnight. Elsewhere in these two districts, and in the whole of Bijápur, it was very light and partial. In the Konkan there was daily rain, which was light during the last fortnight; the total of the month was below the average everywhere. In Gujarát most of the month's rain fell between the 19th and 28th; this fall was preceded by light showers: the rainfall was generally below the average.

September.—In the Deccan the month's rain was generally in excess of the normal. In the Karnátak it was also above, and in places double and treble, the average. In the Konkan the rainfall was much above the average; rain fell continuously till the 20th, and, again, after a short break, during the last four or five days of the month—rain everywhere sufficient. In Gujarát the rainfall was above the average and was sufficient and favourable in all parts.

October.—In most districts of the Deccan rain fell very lightly during the first week; there was none in Khándesh but the fall in Sholápur and in the two talukas of Poona which border that collectorate was heavier. In the Karnátak the month's rain exceeded the average, but in the Konkan it was below it, and there was none at all in Gujarát.

November.—In the Deccan generally rain fell in light and scattered showers, except in Khándesh where there was practically no rain. In the Karnátak, except in some talukas in Belgaum, the month's rain exceeded the average. In the Konkan and in Gujarát there were light and scattered showers.

December.—Very light and scattered showers.

District.	Years.	Population.	Total deaths.	DEATHS FROM				TEMPERATURE IN SHADE.			Mean Humidity.	WIND.		Rainfall in inches.	AVERAGE QUANTITY IN SPOONS PER RUPEE OF THE CHIEF FOOD-GRAINS IN GENERAL USE IN THE DISTRICTS.					Remarks.	
				Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.	Maximum.	Minimum.	Mean.		Prevailing.	Mean velocity in miles.		Rice.	Wheat.	Barley.	Juarí.	Gram.		Bajri.
Poona ...	Average*.		...	...	...	...	...	...	...	...	...	...	In. cts.	...	...	...	...	...	...	...	
	1898	...	24,223	1	76	14,979	4,104	90.5	68.8	77.6	S.W., N.W. & S.E.	241.0	26 69	9	9	...	14	...	...	15	
	1897	...	60,454	9,138	143	34,205	10,297	91.3	64.7	78.0	S.W., N.W. & S.E.	276.0	24 40	8	7	...	9	...	...	8	
	1896	...	1,061,149	37,103	6,340	23,526	2,851	91.6	65.6	78.6	S.W., N.W. & S.E.	256.2	32 56	10	11	...	17	...	...	14	
	1895	...	36,247	456	116	24,726	3,117	89.8	64.8	77.3	N.W., S.W. & S.E.	173.2	25 2	10	14	...	20	...	...	17	
	1894	...	39,837	4,79	286	25,034	2,937	89.5	64.9	77.2	N.W., S.W. & S.E.	216	26 73	9	13	...	18	...	...	15	
	1893	...	29,769	1,195	278	20,475	2,062	88.3	63.8	76.0	S.E., N.W. & S.W.	220	30 84	9	11	...	17	...	...	16	
Sholapur	Average*.		...	...	...	...	...	...	...	...	...	...	28 58	...	...	...	...	...	...	...	
	1898	...	15,864	3	157	7,245	4,905	93.2	68.9	81.0	S.W., S.E. & N.W.	329.8	34 86	10	10	...	17	...	...	18	
	1897	...	38,182	4,262	181	18,771	9,167	98.0	69.3	81.2	N.W., S.W. & S.E.	...	20 42	8	7	...	10	...	...	9	
	1896	...	20,886	980	8	15,803	1,769	94.5	69.3	81.9	S.E., S.W. & N.W.	262	18 40	11	13	...	20	...	...	16	
	1895	...	29,759	1,137	27	23,071	3,254	92.5	68.5	80.0	S.E., N.E. & S.W.	282	31 60	7	17	...	25	...	...	22	
	1894	...	27,769	2,614	38	20,265	2,321	92.1	68.2	80.1	S.E., N.W. & S.W.	295	20 86	7	14	...	19	...	...	19	
	1893	...	22,566	1,753	199	15,940	1,344	90.5	67.0	78.7	S.E., N.W. & S.W.	218	33 17	8	13	...	18	...	...	22	
Belgaum	Average*.		...	...	...	...	...	...	...	...	...	...	51 36	...	...	...	...	...	...	...	
	1898	...	42,555	97	38	19,121	5,161	84.6	60.6	71.0	...	106.2	55 37	12	9	...	17	...	18	16	
	1897	...	42,201	7,499	63	15,869	6,455	82.4	64.3	72.1	N.W., S.W. & N.E.	169.3	48 6	9	7	...	12	...	16	10	
	1896	...	30,147	3,136	413	13,581	3,920	86.4	64.7	72.4	S.E., S.W. & N.W.	181.1	64 29	12	13	...	20	...	25	17	
	1895	...	29,134	173	103	15,633	3,690	84.3	64.2	71.4	S.E., N.W. & S.W.	171	52 45	11	19	...	23	...	28	23	
	1894	...	29,063	1,397	34	16,348	2,796	83.9	64.0	70.9	S.E., N.W. & S.W.	99	49 66	11	16	...	21	...	25	21	
	1893	...	25,612	301	39	14,104	4,229	82.4	63.3	70.1	S.E., N.E. & S.W.	...	51 60	12	12	...	20	...	24	21	

* The average is that for 11 years (1887-1897).

TABLE B.

Monthly Details of above Statement for the year 1898.

1898.	TEMPERATURE OF AIR.			Of Barometric Pressure Mean at 8 hours.	Humidity Mean at 8 hours.	RAINFALL.		WIND.				PRICE PER RUPEE.				DEATHS PER 1,000 OF POPULATION.	
	Mean Maximum.	Mean Range.	Mean Minimum.			Inches.	Days of Rain.	N.	N. N. E. to S. S. E.	S.	S. S. W. to N. N. W.	Wheat.	Rice, 2nd sort.	Jowári.	Bajri.	*Fever.	Cholera.
January—	...	...	...	Inches.	Per cent.	...	3	25	• 1	...	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	...	...
	Surat ...	91.1	34.6	56.5	30.046	56	...	...	...	...	7 6	8 5	15 4	14 13	...	.25	...
	Málegaoon	86.3	39.1	47.2	28.641	42	...	...	1	23	7 3	8 12	...	16 15	...	...	...
	Poona ...	87.5	38.6	48.9	28.230	44	...	...	6	7	7 0	10 3	14 2	12 10	...	.92	...
	Sholápur	87.8	32.6	55.2	28.481	28	...	...	21	1	6 8	9 12	11 10	15 3	...	.16	...
Belgaum	85.0	28.0	57.0	27.511	41	...	...	23	...	7 10	12 10	17 2	15 10	...	...	...	...
February—	...	...	...	Inches.	Per cent.	...	2	12	2	...	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	...	...
	Surat ...	86.2	24.9	61.3	29.923	72	2	...	...	...	7 6	8 5	14 10	13 9	...	.49	...
	Málegaoon	87.6	32.0	55.6	28.500	54	1	...	...	21	10 12	10 4	...	16 15	...	.40	...
	Poona ...	89.0	33.4	55.6	28.101	60	...	...	6	17	9 5	9 10	15 4	13 13	...	.12	...
	Sholápur	89.6	29.6	60.0	28.357	38	1	1	14	9	7 15	8 12	19 3	17 0	...	.08	...
Belgaum	86.0	29.3	56.7	27.404	57	...	...	12	...	3	9 2	12 1	15 9	15 10	...	...	...
March—	...	...	...	Inches.	Per cent.	...	11	10	1	...	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	...	...
	Surat ...	99.0	32.5	66.5	29.914	50	...	...	...	3	9 11	9 5	14 13	14 5	...	.35	...
	Málegaoon	98.5	34.4	64.1	28.499	34	...	...	...	23	11 8	11 11	...	16 15	...	...	...
	Poona ...	100.0	36.3	63.7	28.107	36	...	...	4	19	9 5	9 10	15 4	13 13	...	.25	...
	Sholápur	100.2	29.5	70.7	28.345	27	...	1	10	8	9 1	10 1	19 3	20 0	...	.06	...
Belgaum	94.6	30.2	64.4	27.418	53	4	...	9	5	10 11	12 10	17 10	17 9	...	...	...	...
April—	...	...	...	Inches.	Per cent.	...	2	6	9	...	S. ch.	S. ch.	S. ch.	S. ch.	S. ch.	...	...
	Surat ...	100.5	25.5	75.0	29.828	64	...	...	...	6	9 11	8 5	16 3	14 5	...	.17	...
	Málegaoon	105.9	31.3	74.6	28.409	44	...	1	...	27	11 8	10 4	...	15 9	...	1.02	...
	Poona ...	104.3	33.5	70.8	28.040	43	...	3	...	27	9 5	9 10	15 4	13 13	...	.28	...
	Sholápur	105.9	28.1	77.8	28.268	33	...	2	7	1	13 1	10 12	20 9	...	...	.08	...
Belgaum	95.9	27.7	68.2	27.354	70	7	...	5	...	17	9 10	12 1	17 0	16 1	...	...	...

* Exclusive of Plague deaths.

TABLE B—continued.

1898.	TEMPERATURE OF AIR.			Of Barometric Pressure Mean at 8 hours.	Humidity Mean at 8 hours.	RAINFALL.		Days of Rain.	WIND.			PRICE PER RUPEE.				DEATHS PER 1,000 OF POPULATION.		
	Mean Range.		Mean Minimum.			Inches.	N.		N. N. E. to S. S. E.		S.	S. S. W. to N. N. W.	Wheat.	Rice, 2nd sort.	Jowari.	Bajri.	*Fever.	Cholera.
	Mean Maximum.	Mean Range.																
<i>May</i> —				Inches.	Per cent.													
Surat ...	99.8	20.2	79.6	29.777	64	...	1	...	4	19	S. ch.	S. ch.	S. ch.	16	3	S. ch.	...	
Málegaon	104.7	27.6	77.1	28.369	60	...	...	...	...	30	10	13	10	4	...	12	15	.04
Poona ...	101.3	28.7	72.6	28.010	51	0.07	1	...	...	30	9	5	9	10	4	15	9	.83
Sholápur	105.1	26.8	78.3	28.231	41	0.42	4	...	...	27	11	10	10	12	5	13	13	.11
Belgaum	92.4	24.6	67.8	27.319	74	4.34	...	...	...	27	...	...	...	...	...	17	0	.08
																...		.04
<i>June</i> —																		
Surat ...	92.6	13.5	79.1	29.638	79	12.39	5	...	4	20	9	4	7	6	3	12	15	.05
Málegaon	95.6	19.7	75.9	28.248	64	3.79	1	...	...	29	10	13	9	8	...	15	9	1.47
Poona ...	89.9	17.1	72.8	27.890	71	4.87	...	...	...	30	9	5	9	0	15	4	10	.40
Sholápur	96.7	21.8	74.9	28.148	59	6.48	...	...	...	30	11	3	9	12	17	14	16	.39
Belgaum	80.5	13.0	67.5	27.245	89	10.23	...	...	...	29	9	2	10	8	15	9	15	.04
<i>July</i> —																		
Surat ...	88.0	10.2	77.8	29.597	86	12.08	1	...	5	21	9	4	7	6	10	13	7	.17
Málegaon	87.4	14.0	73.4	28.223	78	4.54	...	...	...	27	11	8	9	8	...	15	14	1.34
Poona ...	81.9	10.9	71.0	27.871	84	7.98	...	...	...	31	9	5	9	0	15	4	12	.58
Sholápur	88.8	16.2	72.6	28.126	71	6.44	...	...	...	28	11	3	9	12	18	12	17	.29
Belgaum	75.6	8.6	67.0	27.728	94	17.17	...	...	...	31	9	10	10	8	16	10	16	.14
<i>August</i> —																		
Surat ...	86.8	9.6	77.2	29.714	83	1.76	...	...	1	28	9	11	7	6	10	13	14	.12
Málegaon	84.5	12.7	71.8	28.315	76	3.25	...	...	...	30	11	8	9	8	...	15	9	1.15
Poona ...	80.6	11.5	69.0	27.958	84	2.53	...	...	...	31	9	5	9	0	15	4	13	.46
Sholápur	89.4	18.5	70.9	28.217	69	3.00	...	...	...	31	11	10	10	4	17	7	17	.68
Belgaum	77.3	11.5	65.8	27.311	91	3.12	...	...	...	31	9	10	11	0	16	10	15	.25

DYSENTERY AND DIARRHŒA.

84. Dysentery and diarrhœa caused the deaths of 30,256 males and 26,533 females, or a total of 56,789 persons against 85,966 in 1897, and a decennial mean of 42,783—a decrease of 29,177 against the last year, but an increase of 14,006 over the decennial mean.

Deaths since 1887. 85. The number of deaths ascribed to dysentery and diarrhœa in each year since 1887 is as follows:—

Year.	Number of deaths from dysentery and diarrhœa.	Year.	Number of Deaths from dysentery and diarrhœa.
1887	42,634	1893	32,965
1888	45,462	1894	34,667
1889	48,202	1895	35,348
1890	36,037	1896	36,046
1891	37,728	1897	85,966
1892	35,406	1898	56,789
Total	245,469	Total	281,781
Mean	40,911	Mean	46,963

The deaths ascribed to “dysentery and diarrhœa” during the ten years preceding 1897 showed only very slight variations, but in 1897 the deaths due to these diseases showed a considerable increase and amounted to nearly double that of any of the ten years already mentioned. The increase has been continued during the present year, and, although much smaller, the total is still considerably over any of the ten years previous to 1897.

Deaths by districts and collectorates. 86. The following table shows the deaths from dysentery and diarrhœa arranged by districts and collectorates:—

Districts.	No.	Collectorates.	Population according to Census of 1891.	DEATHS FROM DYSENTERY AND DIARRHŒA.					
				Mean for ten years from 1888 to 1897.	Ratio per 1,000 of Population.	1897.	Ratio per 1,000 of Population.	1899.	Ratio per 1,000 of Population.
Western Registration District.	1	Khândesh	1,460,319	5,628	4.04	7,736	5.29	8,594	5.90
	2	Násik	841,087	3,771	4.58	7,841	9.32	5,321	6.33
	3	Thána	818,967	1,154	1.42	2,133	2.60	1,362	1.66
	4	Bombay... ..	806,144	1,943	2.44	3,518	4.36	3,520	4.36
	5	Kolaba	594,779	1,423	2.54	3,595	6.04	1,740	2.93
Central Registration District.	6	Ahmednagar	887,656	2,877	3.40	6,892	7.76	4,179	4.71
	7	Poona	1,061,449	2,838	2.80	10,297	9.70	4,104	3.87
	8	Sholápur	750,255	2,526	3.61	9,167	12.22	4,905	6.54
	9	Sátára	1,225,511	3,442	2.93	10,077	8.22	6,327	5.16
	10	Ratnágiri	1,105,862	2,421	2.26	6,464	5.85	3,611	3.29
Southern Registration District.	11	Belgaum	1,011,453	5,362	5.54	6,455	6.38	5,161	5.10
	12	Dhárwár	1,050,533	3,589	3.60	2,617	2.49	2,781	2.65
	13	Bijápur	796,286	2,713	3.62	5,155	6.47	1,908	2.40
	14	Kánara	416,156	740	1.68	1,781	3.99	680	1.52
Gujarát Registration District.	15	Surat	649,824	686	1.07	464	0.71	631	0.97
	16	Broach	341,450	128	0.38	97	0.28	205	0.60
	17	Kaira	871,529	389	0.46	244	0.28	147	0.16
	18	Panch Mahals	313,381	28	0.09	21	0.07	26	0.08
	19	Ahmedabad	920,928	628	0.69	345	0.37	391	0.43
Sind Registration District.	20	Karachi	561,013	258	0.48	356	0.63	430	0.77
	21	Hyderabad	883,836	93	0.11	314	0.36	429	0.49
	22	Thar and Párkar	332,401	26	0.09	42	0.13	24	0.07
	23	Shikárpur	915,058	105	0.12	344	0.38	276	0.30
	24	Upper Sind Frontier	174,469	15	0.09	11	0.06	7	0.04

Abstract.

Western Registration District	...	...	4,521,296	13,919	3.17	24,823	5.49	20,537	4.54
Central do.	...	...	5,030,733	14,104	2.93	42,897	8.52	23,156	4.60
Southern do.	...	...	3,301,428	12,404	3.93	16,008	4.84	10,530	3.19
Gujarāt do.	...	...	3,097,112	1,859	0.61	1,171	0.35	1,400	0.45
Sind do.	...	...	2,866,777	497	0.18	1,067	0.37	1,166	0.41
Total	...	...	18,820,346	42,783	2.36	85,966	4.57	56,789	3.02

The rate (3.02) although still high was lower than in the year 1897 (4.57), but was still over the decennial mean (2.36). The increase as last year is chiefly in the Western and Central Registration Districts and is most noticeable in those parts lately affected by famine, with the exception of Bijápúr which showed a decrease as compared with the decennial mean. The collectorates of Násik, Poona, Sholápur and Sátára, which last year had a very high rate, still show a rate considerably over the mean, and Sholápur as last year continues to head the list, although not so markedly. All these collectorates suffered from famine in 1896-97 and some to a certain extent in 1898. Sholápur, which shows the highest rate in 1897 and also in 1898, was the one most severely affected by the famine as well as the one in which it continued the longest. In my opinion the prevalence of these diseases is chiefly due to the after effects of the famine.

The Southern Registration District, which last year showed an increase over the decennial mean, has this year fallen below it. The variations in the Registration Districts of Gujarāt and Sind are very small and call for no remark.

87. The table in the margin shows the monthly distribution of deaths

Deaths by months.

Months.	Mean for ten years from 1888 to 1897.	1897.	1898.
January	2,747	2,943	5,179
February	2,674	2,869	3,920
March	2,327	3,814	4,133
April	2,747	4,910	4,165
May	2,938	5,845	3,628
June	3,238	6,280	3,430
July	4,148	10,637	4,419
August	5,020	13,507	6,271
September	5,178	12,002	5,784
October	4,378	10,225	5,733
November	3,620	7,171	4,831
December	3,766	5,773	5,296
Total	42,781	85,966	56,789

ascribed to these causes as compared with the mean and with the corresponding months of 1897. During every month in the year the deaths were over the decennial mean. In January they were considerably so, and this was the continuation from the previous year of the very high rate which occurred in it: this high rate continued until the end of April. During May and June the rate was nearly normal, but in July it again increased and continued to do so until the end of the year, by which time it has become considerably over the mean. In 1897 the greatest mortality occurred during July, August, September and October, and was very marked; in 1898 the deaths were more equally distributed over the year, and the beginning and end of the year

showed the highest number of deaths. The decennial mean shows that deaths from these diseases are at their lowest and fairly steady from January to May: they then rise and continue to do so until the end of October, when a fall takes place which continues to the end of the year.

INJURIES.

88. During 1898, 3,973 males and 3,011 females, or a total of 6,984 persons met with violent deaths. The mortality from these causes is more by 77 than that reported in 1897.

Deaths from injuries.

Deaths since 1887. 89. The number of deaths registered from injuries in each year since 1887 is as follows:—

Year.	Number of deaths from injuries.	Year.	Number of deaths from injuries.
1887	5,558	1893	6,144
1888	5,731	1894	6,117
1889	5,941	1895	6,051
1890	5,883	1896	6,238
1891	5,887	1897	6,907
1892	5,432	1898	6,984
Total	34,432	Total	38,441
Mean	5,739	Mean	6,407

90. The deaths from these causes for the last two years, arranged by sexes, are shown in the following table :—

				1987.			1898.		
				Males.	Females.	Total.	Males.	Females.	Total.
Drowning	...	...	...	1,425	1,591	3,016	1,365	1,639	3,004
Poisoning	...	...	...	70	24	94	76	33	115
Hanging	...	...	...	114	84	198	126	97	223
Wounding	...	...	...	480	183	663	475	185	660
Wild beasts	...	...	...	68	29	97	54	25	79
Snake-bites	...	...	...	784	437	1,221	929	522	1,451
Other causes	...	...	...	1,052	566	1,618	948	504	1,452
Total	...	...	...	3,993	2,914	6,907	3,973	3,011	6,984

From the above table it will be seen that during 1898 under drowning, wounding, wild beasts and other causes, there is a decrease under each head ; but under snake-bite, hanging and poisoning there is an increase compared with 1897.

91. The next table gives the deaths from injuries for each district and collectorate for 1897 and 1898 and the means for the previous ten years. The number of deaths during the year in 10 collectorates was greater, and in 14 less than the previous year. The highest number of deaths was recorded in the Town and Island of Bombay (540) and the lowest in the Upper Sind Frontier (74):—

Districts.	No.	Collectorates.	Population according to Census of 1891.	DEATHS FROM INJURIES.					
				Mean for ten years from 1888 to 1897.	Ratio per 1,000 of Population.	1897.	Ratio per 1,000 of Population.	1898.	Ratio per 1,000 of Population.
Western Registration District.	1	Khândesh ...	1,460,319	325	0·23	449	0·31	400	0·27
	2	Nâsik ...	841,087	183	0·22	246	0·29	234	0·28
	3	Thâna ...	818,967	406	0·49	420	0·51	414	0·51
	4	Bombay ...	806,144	406	0·51	503	0·62	540	0·67
	5	Kolâba ...	594,779	214	0·38	257	0·43	238	0·40
Central Registration District.	6	Amednagar ...	887,656	145	0·17	238	0·27	217	0·25
	7	Poona ...	1,061,449	280	0·28	259	0·24	243	0·22
	8	Sholâpur ...	750,255	166	0·24	235	0·31	238	0·38
	9	Sâtâra ...	1,225,511	299	0·25	407	0·33	450	0·37
	10	Ratnâgiri ...	1,105,862	286	0·27	304	0·27	502	0·45
Southern Registration District.	11	Belgaum ...	1,011,453	325	0·34	421	0·42	373	0·37
	12	Dhârwar ...	1,050,533	301	0·30	315	0·29	337	0·32
	13	Bijâpur ...	796,286	221	0·29	257	0·32	251	0·32
	14	Kânara ...	446,156	173	0·40	147	0·33	184	0·41
Gujarât Registration District.	15	Surat ...	649,824	240	0·37	293	0·45	295	0·45
	16	Broach ...	341,450	134	0·40	149	0·44	142	0·42
	17	Kaira ...	871,529	368	0·43	379	0·44	301	0·35
	18	Panch Mahâls ...	313,381	112	0·38	134	0·43	104	0·33
	19	Ahmedabad ...	920,928	236	0·32	236	0·32	272	0·29
Sind Registration District.	20	Karâchi ...	561,013	276	0·51	298	0·53	269	0·48
	21	Hyderabad ...	883,836	340	0·40	338	0·38	346	0·39
	22	Thar and Pârkar ...	332,401	99	0·34	111	0·33	144	0·44
	23	Shikârpur ...	915,058	394	0·44	407	0·44	366	0·40
	24	Upper Sind Frontier ...	174,469	50	0·31	54	0·31	74	0·42

Abstract.

Western Registration District	...	...	4,521,296	1,534	0·35	1,875	0·41	1,326	0·40
Central do.	do.	...	5,030,733	1,176	0·24	1,443	0·29	1,700	0·34
Southern do.	do.	...	3,304,428	1,020	0·32	1,140	0·34	1,145	0·35
Gujarât do.	do.	...	3,097,112	1,140	0·37	1,241	0·40	1,114	0·36
Sind do.	do.	...	2,866,777	1,159	0·42	1,208	0·42	1,199	0·42
Total	...	...	18,820,346	6,029	0·33	6,907	0·37	6,984	0·37

92. The monthly distribution of deaths from snake-bites is given in the next table for each year from 1893 to 1898 inclusive. The deaths in 1898 were, as usual, most numerous during the rainy season :—

Months.	YEARS.						
	1893.	1894.	1895.	1896.	1897.	Mean for five years.	1898.
January ...	43	46	44	28	26	37	42
February ...	26	54	31	33	26	34	39
March ...	58	38	40	41	35	43	57
April ...	66	67	66	50	37	57	84
May ...	110	80	113	109	85	99	116
June ...	138	182	192	180	138	166	166
July ...	161	196	180	192	188	184	215
August...	198	196	221	154	194	191	199
September ...	194	179	194	171	198	187	194
October ...	146	173	138	181	166	161	196
November ...	96	92	123	104	84	100	88
December ...	46	71	38	43	44	48	55
Total ...	1,282	1,364	1,380	1,286	1,221	1,307	1,451

93. The next table shows the deaths by localities. The highest number (249) was recorded in Ratnágiri; Hyderabad and Snake-bites by districts. Thána following with 155 and 139 and Shikárpur with 111. The total number was 144 over the five years mean and 230 over last year. The increases are most marked in Ratnágiri, Hyderabad and Thar and Párkár :—

Collectorates.	YEARS.						
	1893.	1894.	1895.	1896.	1897.	Mean for five years.	1898.
Khándesh ...	44	58	54	39	50	49	39
Násik ...	33	14	31	40	14	26	33
Thána ...	147	129	148	161	123	142	139
Bombay ...	4	9	3	6	2	5	4
Kolába ...	43	30	43	52	49	43	57
Ahmednagar ...	17	14	20	31	23	21	22
Poona ...	40	26	50	24	34	35	27
Sholápur ...	19	25	18	18	23	21	29
Sátára ...	23	33	51	47	44	40	58
Ratnágir ...	166	182	149	191	141	166	249
Belgaum ...	25	34	30	35	35	32	52
Dhárwár ...	23	21	25	20	17	21	32
Bijápur ...	24	23	31	23	25	25	23
Kánara ...	13	25	9	23	18	18	10
Surat ...	39	47	33	34	50	41	49
Broach ...	36	30	28	29	33	31	24
Kaira ...	57	78	98	60	68	72	47
Panch Mahals ...	24	38	39	24	40	33	32
Ahmedabad ...	63	87	97	71	70	73	75
Karáchi ...	84	86	96	74	78	83	73
Hyderabad ...	145	140	132	116	123	131	155
Thar and Párkár ...	85	106	81	52	57	76	85
Shikárpur ...	111	115	102	109	90	105	111
Upper Sind Frontier ...	17	14	12	7	14	13	26
Total ...	1,282	1,364	1,380	1,286	1,221	1,307	1,451

94. In the following table the deaths from injuries are detailed under the specified headings, and it will be seen that of the 3,004 Details of injuries. deaths by drowning, 350 were suicidal, 2,551 accidental, and 103 are entered as "otherwise". This latter heading means that when the return was submitted, no decision had been come to as to whether these deaths were "suicidal" or "accidental". Of the 668 suicidal deaths, 350 were the result of drowning, 64 from taking poison, 206 from hanging, and 48 from self-inflicted wounds.

OTHER CAUSES.

95. The recorded deaths from causes other than those specified number 176,335, of which 90,033 occurred among males and 86,302 among females. The total for 1897 was 143,503, so there is an increase of 32,832 under this head :—

Districts.	No.	Collectorates.	Population according to census of 1891.	DEATHS FROM OTHER CAUSES.					
				Mean for ten years from 1888 to 1897.	Ratio per 1,000 of Population.	1897.	Ratio per 1,000 of Population.	1898.	Ratio per 1,000 of Population.
Western Registration District.	1	Khândesh ...	1,460,319	3,068	2.20	6,701	4.59	14,645	10.02
	2	Nâsik ...	841,087	4,576	5.56	8,262	9.82	9,556	11.36
	3	Thâna ...	818,967	2,884	3.54	5,924	7.23	6,130	7.49
	4	Bombay...	806,144	15,036	18.88	15,244	18.91	25,183	31.24
	5	Kolâba ...	694,779	2,256	4.02	4,416	7.43	4,632	7.79
Central Registration District.	6	Ahmednagar ...	887,656	5,846	6.90	11,215	12.63	10,572	11.89
	7	Poona ...	1,061,449	5,018	4.95	6,412	6.04	4,825	4.54
	8	Sholâpur ...	750,255	2,889	4.13	5,566	7.42	3,266	4.36
	9	Sâtara ...	1,225,511	4,248	3.61	6,312	5.15	11,097	9.06
	10	Ratnâgiri ...	1,106,862	6,997	6.52	7,100	6.42	3,799	3.44
Southern Registration District.	11	Belgaum ...	1,011,453	7,037	7.27	11,894	11.76	17,465	17.27
	12	Dhârwar ...	1,050,533	7,785	7.78	13,343	12.70	21,018	20.01
	13	Bijâpur...	796,286	3,885	5.19	6,564	8.24	5,575	6.99
	14	Kânara ...	446,156	4,246	9.67	5,128	11.49	4,595	10.29
Gujarat Registration District.	15	Surat ...	649,824	2,933	4.59	8,681	13.36	9,090	13.99
	16	Broach ...	341,450	1,397	4.14	2,025	5.93	3,081	9.02
	17	Kaira ...	871,529	4,504	5.29	5,605	6.43	8,931	10.25
	18	Panch Mahâls ...	313,381	213	0.72	266	0.84	855	2.73
	19	Ahmedabad ...	920,928	4,171	4.63	5,920	6.42	5,999	6.52
Sind Registration District.	20	Karâchi...	561,013	1,637	3.06	2,629	4.69	2,622	4.67
	21	Hyderabad ...	883,836	577	0.68	1,376	1.56	1,199	1.36
	22	Thar and Pârkar ...	332,401	165	0.57	245	0.74	25	0.65
	23	Shikârpur ...	915,058	548	0.61	2,548	2.78	1,836	2.01
	24	Upper Sind Frontier ...	174,469	73	0.46	127	0.73	149	0.85

Abstract.

Western Registration District ...	4,521,996	27,820	6.33	40,547	8.97	60,146	13.30
Central do. do. ...	5,030,733	24,998	5.19	36,605	7.28	33,559	6.67
Southern do. do. ...	3,304,428	22,953	7.27	36,929	11.18	48,653	14.72
Gujarat do. do. ...	3,097,112	13,218	4.36	22,497	7.26	27,956	9.03
Sind do. do. ...	2,866,777	3,000	1.09	6,925	2.42	6,021	2.10
Total ...	18,820,346	91,989	5.08	143,503	7.62	176,335	9.37

96. The number of deaths registered from other causes in each year since 1887 was as follows :—

Year.	Number of deaths from other causes.	Year.	Number of deaths from other causes.
1887 ...	68,883	1893 ...	89,142
1888 ...	72,284	1894 ...	100,558
1889 ...	78,044	1895 ...	97,104
1890 ...	70,653	1896 ...	100,112
1891 ...	81,263	1897 ...	143,503
1892 ...	87,196	1898 ...	176,335

97. Under this heading all deaths are included which cannot be classed under cholera, small-pox, fever, dysentery and diarrhoea or injuries. They have been increasing gradually for the last ten years, and are now more than double what they were ten years ago. The increase became more pronounced in 1897, and this has been continued during the present year. At first sight this late increase would at once be put down to increased accuracy in registration owing to famine and plague operations, but the subject is not quite such an easy one

as at first appear, as there are other things which influence the rates as will be seen from the following figures.

Taking the present year we may exclude the influence of famine, but still we find that in Khándesh, for example, where there has been very little plague, the rate has gone up from 4.59 to 10.02, whereas in Poona and Sholápur, where there has been more plague than in Khándesh, the rate has gone down from 6.04 to 4.54 and from 7.42 to 4.35, respectively. The rate has certainly gone up on account of plague in the districts of Belgaum (17.27) and Dhárwar (20.01), but in 1897 it had already considerably increased (11.76 and 12.70) from 8.33 and 8.97 in 1896, although there was very little famine or plague during that year. Bijápur, although it suffered severely from famine in 1897, had its rate increased only from 5.56 to 8.24, and in 1898 with a medium amount of plague its rate fell to 6.99. The Surat district on the other hand had its rate sent up by plague from 3.40 in 1896 to 13.36 in 1897 and kept high (13.99) by the same disease in 1898. The district of Sátára with some famine and a great deal of plague in 1897 had a rate of 5.15 as compared with 2.55 in 1896: with less plague and famine in 1898 this rose to 9.06.

The gradual increase of the rate—which may be expected to continue—has been due to greater accuracy in entering the causes of deaths being attained year by year. The great increase and variations in different parts during the last two years had been, I think, due to various causes, no doubt the presence of famine and plague has led to more accurate registration, especially in large towns from measures taken on account of the latter cause; but there cannot be much doubt that many cases showing feverish symptoms and in some instances cases of plague which would in ordinary course have come under “fever” have been entered as some other disease which would bring them under “other causes”. This no doubt is done to avoid returning a death from plague, or a death from a cause like fever which might cause a suspicion of that disease.

Epidemics and abnormal mortality such as have occurred during the last two years always tend to raise the rate under this head.

SECTION VII.

GENERAL HISTORY OF VACCINATION.

98. The above has been omitted from this report, and appears separately.

SECTIONS VIII AND IX.

SANITARY WORKS—MILITARY AND CIVIL.

99. All available information under these sections has been thrown in a tabular form, and will be found in Appendices IV and V.

100. The Executive Engineers in charge of Military Works have made the following suggestions :—

Poona. Masonry drains be built for those at present dug into the natural soil for clearing away water from the Station Hospital.

Latrines of the new type be provided for the use of the natives at the Female Hospital.

Sátára. The murum floor of No. 4 privy to be removed and paved.

A built dust-bin to the cook-house in barracks.

The low roof of the cook-house on the Hill Fort be made higher and properly ventilated.

The murum floor in the rear apartment of latrines of the European Infantry Barracks be removed to a depth of 6 inches and replaced by new murum.

As the ridge ventilators of European Infantry Barracks allow the rain to be blown through, galvanized iron sheeting turned over should be fixed along the upper edges of the main roof below the ridge ventilators so as to prevent rain water being blown upward over the edge of the main roof into the barracks.

A small shed for a urinal for the convenience of men frequenting the Institute at Khandála. Hoods and chimneys of sheet iron over the fireplaces of barracks and hospital cook-rooms to carry off the smoke. A 75-gallon Larymore boiler for sterilising water for the use of troops stationed at Khandála. To construct masonry drains to take off the water from bath-rooms in Patcheries British Infantry Lines; that the arched openings of the west verandahs of guard-room and cells, British Infantry, be partially closed to prevent the sun's rays striking in during the afternoon. That the Barracks of British Troops would be improved in a sanitary sense by ramming a 6 inches layer of kánkár 10 feet wide contiguous and on each side of the plinth and raised above the ground level.

Improving the drainage round the European Infantry Barracks and Hospital by constructing masonry stone drains round its plinth; laying improved flat roof over the remaining portions of the European Infantry Barracks; and dismantling and re-constructing pendals Nos. 11 and 12 of the Native Infantry Lines.

Erinpura. The cuttings as drains in the Bazár be made of brick or stone in lime at Erinpura.

Sambulpur. Screen walls of brick in mud be erected to form enclosures to the huts, the re-roofing of the lines, and raising the floors of the huts.

Nos. 6 and 7 Somerset Lines (double-storied single men's barracks) have no verandahs to the dormitories on the upper floor, their roofs should be prolonged as very wide eaves on brackets to shade the walls; the Rutton Tank in the vicinity of the Somerset Lines is offensive and objectionable; it should be filled up, and the nála in Burn's Gardens to the south-west of these lines and outside them in Municipal limits

should be straightened, regraded and cleaned, and the adjoining marshy ground reclaimed; as although the drainage passes clear down through the lines in the upper part of this nála, it stagnates just beyond the boundary.

101. It will be seen from the statement given in Appendix V. that there were 166 Municipalities (compared with last year (167), Matar in Kaira and Pussesavli in Sátára District have been abolished, and Kharda in Ahmednagar newly established) in the mofussil, with a population of 2,231,254 souls and an income of Rs. 53,26,199. Out of this income Rs. 26,22,028, or 49·23, were allotted for sanitary works, and out of this allotment Rs. 24,26,846, or 92·56 per cent., were spent.

102. Out of the total expenditure, Rs. 10,50,768, or 43·30 per cent., were spent on conservancy; Rs. 5,18,010, or 21·34 per cent., were spent on improvement of water-supply; Rs. 1,21,933, or 5·02 per cent., on improvement of town sites; Rs. 41,707, or 1·72 per cent., were spent on construction and repairs of markets and slaughter-houses; Rs. 31,777, or 1·31 per cent., were spent on sanitary arrangements during fairs and festivals, and Rs. 6,62,651, or 27·31, were spent on other sanitary objects, including construction and repairs of tanks, &c. The district and divisional details are given below:—

Municipalities.	Population as per Census of 1891.	Income of 1897-98.	Rate per cent. of sanitary allotment to estimated income.	Rate per cent. of sanitary expenditure to amount sanctioned.	Sanitary Allotment.		Conservancy.		Improvement of Town-sites.		Improvement of Water-supply, including cleansing, repairing, &c.		Sanitary arrangements during Fairs and Festivals.		Construction and repairs of Markets and Slaughter-houses.		Other Sanitary objects, including construction and repairs of Tanks, &c.	
					Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.
<i>Northern Division.</i>		Rs.			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Ahmedabad ..	246,686	5,00,326	37·22	94·05	1,86,245	1,75,164	1,17,393	112,429	5,740	4,893	33,902	33,255	80	64	430	415	26,640	24,710
Kaira ..	125,813	1,87,345	35·51	87·25	48,771	42,543	26,772	23,758	7,841	7,075	2,914	1,959	1,348	659	125	103	9,771	8,758
Panch Maháls ..	31,722	36,295	39·80	91·35	14,444	13,104	6,516	5,687	2,262	2,046	1,531	1,441	..	..	..	..	4,135	4,200
Broach ..	72,314	1,51,072	41·54	82·95	62,757	52,074	41,180	38,118	3,973	3,917	7,719	3,103	..	..	2,165	1,686	7,715	5,253
Surat ..	138,362	6,92,833	60·88	..	4,21,810	5,17,277	49,151	36,824	25,091	19,796	2,96,469	2,32,514	..	..	3,856	2,171	87,252	2,25,967
Thána ..	89,713	1,86,419	40·79	88·79	76,045	67,517	49,316	43,509	1,075	1,008	10,719	8,885	238	238	1,564	1,127	13,130	12,731
<i>Central Division.</i>																		
Ahmednagar ..	63,374	2,00,813	71·98	65·55	1,44,548	94,649	31,085	31,694	853	593	1,11,335	61,301	..	..	1,275	1,061	..	..
Khándesh ..	198,727	2,49,297	43·34	81·36	1,08,035	87,893	60,832	55,146	12,601	9,628	17,244	13,530	30	..	5,999	2,514	11,279	7,053
Másik ..	77,981	1,50,228	60·09	89·69	90,282	80,972	48,547	37,992	2,400	2,462	8,532	5,421	..	..	1,447	979	34,116	34,116
Poona ..	178,082	3,63,095	62·30	89·42	2,26,213	2,03,269	1,21,517	111,294	4,519	2,301	25,585	21,135	3,267	1,293	11,203	9,014	60,122	57,255
Sátára ..	111,526	2,13,307	20·27	85·95	43,246	37,109	25,227	24,087	725	164	6,769	4,061	3,511	2,718	1,964	1,411	5,050	4,700
Sholapur ..	114,879	3,19,317	45·41	66·94	1,54,666	1,03,527	45,314	40,761	625	451	50,597	19,865	42,619	26,375	1,982	671	23,529	15,400
<i>Southern Division.</i>																		
Belgaum ..	75,126	1,10,728	47·54	80·79	52,650	42,536	33,382	32,456	6,683	3,542	5,305	2,501	300	73	1,253	535	6,637	3,380
Dhárwár ..	149,574	2,31,539	46·58	89·60	1,07,854	96,441	36,008	33,711	6,800	5,510	15,037	13,205	10	6	3,443	1,136	46,556	42,460
Bijápúr ..	61,169	73,481	37·05	69·88	27,222	19,092	21,257	15,534	1,238	1,231	3,062	848	..	..	213	127	1,452	1,300
Kánara ..	65,530	57,709	24·48	79·99	14,009	11,206	9,160	9,026	786	374	2,473	783	155	70	385	296	1,050	..
Ratnágiri ..	45,949	48,117	41·16	80·20	19,803	15,882	6,443	5,479	80	80	3,378	1,536	..	..	303	122	9,539	8,000
Kolgha ..	47,007	55,252	31·78	88·78	17,561	15,592	11,768	11,458	10	4	2,812	1,672	..	..	130	113	2,841	2,500
<i>Sind Division.</i>																		
Karachi ..	127,256	6,00,961	71·25	96·75	4,28,370	4,14,452	1,62,978	156,703	45,723	41,569	22,176	20,071	150	77	7,093	5,981	1,90,250	1,90,000
Hyderabad ..	85,389	3,31,849	60·57	86·90	2,00,969	1,74,864	1,35,652	124,952	9,048	5,175	33,828	35,797	..	..	2,210	1,080	20,251	7,660
Thar and Párkar ..	6,898	16,544	17·60	85·00	2,926	2,487	1,745	1,726	375	315	248	229	..	..	418	171	140	..
Shikárpúr ..	109,987	5,37,863	29·12	92·65	1,56,335	1,44,838	92,398	88,672	12,730	9,629	38,902	33,522	..	..	11,055	7,685	1,250	6,330
Upper Sind Frontier.	8,294	61,759	27·93	89·34	17,247	15,408	10,205	9,752	..	..	2,112	1,067	..	..	3,640	3,307	1,290	1,250

Abstract.

Northern Division ..	704,611	17,04,340	47·53	..	8,10,072	8,67,760	2,90,328	2,60,325	45,990	38,835	3,43,305	2,41,160	1,666	1,165	8,140	5,500	1,20,645	2,80,730
Central Division ..	744,069	14,96,057	51·27	79·07	7,66,990	6,08,479	3,27,572	3,00,974	21,023	16,599	2,20,062	1,25,319	39,427	30,386	23,910	15,651	1,34,093	1,18,530
Southern Division ..	441,355	5,76,826	41·45	83·92	2,39,009	2,00,749	1,19,018	1,07,604	15,697	10,811	32,157	20,845	465	149	5,787	2,332	67,075	58,900
Sind Division ..	338,219	15,48,976	52·03	93·42	8,05,867	7,51,849	4,02,978	3,81,805	67,876	66,693	97,266	90,606	150	77	24,416	19,224	2,13,181	2,04,339
Total ..	2,231,254	53,26,199	49·23	92·56	26,22,028	24,26,846	11,38,896	10,50,768	1,51,386	1,21,933	6,92,790	5,18,014	11,708	31,777	42,233	41,707	5,34,996	6,62,651

Besides the above expenditure several Municipalities have spent large sums of money on precautionary measures against plague and on plague hospitals and sheds for segregation of healthy people.

103. The following are the district and divisional details of the allotment and expenditure from the District and Taluka Local Boards, and it will be seen from it that a large portion (86.00 per cent.) of the amount was spent on improvement of water-supply.

Statement showing the Income and Allotment for Sanitation during the year 1897-98 in the District Local Boards of the Bombay Presidency.

District Local Boards.	Population as per Census of 1901.	Area in square miles.	Number of villages in the Circle.	Number of villages conserved.		Estimated Income of 1907-08.	Rate per cent. of allotment to estimated income.	Rate per cent. of sanitary expenditure to allotment.	1907-98.															
				Number of unions.	Number of other villages.				Sanitary Allotment.		Conservancy.		Improvement of Village-sites.		Improvement of Water-supply, including cleansing, repairing and construction of Tanks and Wells.		Sanitary arrangements at Fairs and Festivals.		Construction and repairs of Markets and Slaughter-houses.		Other Sanitary objects, including construction and repairs of Latrines, Dust-bins, Drains, &c.			
									Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.		
<i>Northern Division.</i>						Rs.			Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Ahmedabad ...	920,928	3,821	1,183	...	12	1,58,986	49.30	62.30	75,912	47,335	...	...	...	...	75,912	47,335	...	...	...	...	...	...	...	
Kaira ...	871,529	1,506	573	...	16	2,58,694	30.71	51.67	79,429	41,041	...	...	...	...	74,290	39,327	...	...	...	...	5,139	1,714	...	
Panch Mahals ...	313,381	1,613	692	...	4	33,238	50.57	78.03	16,808	13,115	...	...	100	60	16,407	12,755	...	...	...	...	...	301	300	
Broach ...	341,450	1,453	421	...	12	2,20,716	18.85	84.05	41,605	31,909	1,872	632	500	491	37,888	32,599	...	...	...	...	1,335	1,247	...	
Surat ...	649,324	1,662	324	12	4	4,30,218	13.64	71.98	58,672	42,233	...	...	...	...	54,522	38,111	175	116	...	...	3,975	4,006	...	
Thana ...	818,967	3,769	1,689	...	3	1,66,516	27.42	64.77	45,654	29,571	1,385	1,212	1,034	638	40,485	25,924	...	...	...	...	2,750	1,797	...	
<i>Central Division.</i>																								
Ahmednagar ...	887,656	6,594	1,362	...	7	1,81,899	3.55	81.85	6,465	5,460	...	...	...	...	6,465	5,460	...	...	...	...	...	...	...	
Khândesh ...	1,460,319	10,454	3,335	...	5	4,43,608	7.20	69.48	31,921	22,178	...	...	100	84	31,421	21,697	...	...	...	...	406	397	...	
Nâsik ...	841,087	5,935	1,694	...	36	45,910	44.80	96.57	20,565	19,859	40	36	470	459	20,055	19,334	...	...	...	...	...	...	...	
Poona ...	1,061,449	5,349	1,204	...	45	1,13,123	12.34	81.21	13,950	11,333	...	...	750	584	13,131	10,749	...	...	...	...	75	...	...	
Sâtara ...	1,225,511	4,998	1,15	...	7	1,57,981	18.27	56.39	28,969	16,234	667	607	...	...	28,202	15,587	...	...	...	...	...	...	...	
Sholâpur ...	750,255	4,512	717	...	1	82,124	28.05	48.63	23,119	11,212	135	132	...	...	20,751	9,185	...	...	...	...	2,235	1,925	...	
<i>Southern Division.</i>																								
Belgaum ...	1,011,453	4,656	1,133	...	6	1,19,479	14.67	93.50	17,526	16,387	1,415	1,415	536	230	15,575	14,742	...	...	...	...	...	...	...	
Bijâpur ...	796,286	5,603	1,169	...	35	2,53,110	7.48	77.67	18,927	14,701	...	...	...	...	18,927	14,701	...	...	...	...	...	...	...	
Dhârwar ...	1,050,533	4,535	1,472	...	29	2,93,773	23.46	63.28	83,601	52,906	...	...	1,880	729	81,721	52,180	...	...	...	...	...	...	...	
Kânara ...	446,156	3,943	1,406	...	...	65,481	6.02	88.48	3,941	3,487	824	780	...	...	3,117	2,707	...	...	...	...	...	...	...	
Kolâba ...	594,779	2,137	1,632	...	11	85,355	46.44	63.42	39,643	25,143	...	...	...	...	39,613	25,143	...	...	...	...	...	...	...	
Ratnâgiri ...	1,105,862	3,919	1,329	...	4	1,40,524	10.94	47.79	15,379	7,350	...	...	...	...	15,379	7,350	...	...	...	...	...	...	...	
<i>Sind Division.</i>																								
Karâchi ...	661,013	14,221	3,473	...	37	56,435	13.35	49.51	10,362	5,131	317	244	40	8	9,299	4,834	...	...	725	545	...	...	...	
Hyderabad ...	883,836	8,312	1,583	...	19	1,23,053	10.66	87.33	13,851	11,921	...	...	...	...	7,597	6,298	740	388	...	...	5,314	5,235	...	
Shikârpur ...	915,098	8,039	1,163	...	7	2,95,692	18.45	78.68	51,641	42,991	1,082	795	...	...	16,182	8,060	...	...	...	...	37,377	34,133	...	
Thar and Pârkar ...	332,401	13,435	2,446	...	7	37,784	23.35	63.77	8,824	5,627	1,372	1,372	7,452	4,255	...	...	...	...	...	...	...	...	...	
Upper Sind Frontier.	174,469	2,602	1,390	...	...	78,437	3.45	82.45	2,709	2,211	156	156	1,000	759	1,530	1,316	...	...	...	...	...	...	...	

Abstract.

Northern Division ...	3,916,079	13,914	5,382	1	51	12,63,278	25.17	65.48	3,18,030	2,08,264	3,257	1,844	1,634	1,183	2,99.51	1,96,051	175	116	...	...	13,500	9,064	...	...
Central Division ...	6,226,277	37,962	9,657	...	101	17,21,945	13.18	69.20	1,24,895	86,326	842	835	1,320	1,127	1,20,025	82,042	...	...	...	...	2,768	2,322	...	...
Southern Division ...	5,005,069	21,874	8,141	...	76	9,57,722	18.69	67.02	1,79,017	1,19,974	2,239	2,195	2,416	956	1,74,362	1,16,823	...	...	...	...	...	...	...	...
Sind Division ...	2,866,817	46,609	9,955	...	70	5,96,241	15.13	75.29	90,181	67,901	2,927	2,570	8,492	5,022	34,699	20,008	740	388	725	545	42,691	39,368	...	...
Total ...	18,014,202	123,259	3,135	1	298	38,42,186	18.54	67.75	7,12,176	4,82,465	9,285	7,444	13,862	8,234	6,28,516	4,13,924	915	501	725	545	58,891	50,754	...	...

104. The following table shows when the drainage and water-works were completed and the average annual death-rate since the completion and the

average annual death-rate for the five-year period preceding the introduction⁷ and the ratio for rural circles and districts :—

Name of District.	Táluka.	Town.	Date of completion of work of		Average annual death-rate since the introduction of drainage system or water-supply or both.	Average annual death-rate for the five-year period preceding the introduction of drainage system or water-supply or both.	Ratio of Rural Circle excluding the towns for the year 1898.	Ratio for districts excluding the towns for the year 1898.	Remarks.
			Drainage.	Water-supply.					
1	2	3	4	5	6	7	8	9	10
...	...	Bombay	1879a..	1892b..	42.69	Not available	..	..	a. Drainage works commenced in 1879, though still in progress, are very far from complete.
Khándesh	Dhulia	Dhulia	..	1896	34.36	32.35	28.91	28.19	b. Tansa water works completed in 1892. Besides this there are Vebar and Tulsi water works.
Thána	Jalgaon	Jalgaon	..	1878	23.35	10.06	32.89	28.19	
Thána	Sátsette	Thána	..	1881	21.54	22.9	37.47	27.78	
Kolába	Ráudra	Ráudra	..	1896	60.66	23.1	37.47	27.78	
	Alibág	Alibág	..	1876	29.56	Not available	30.71	23.32	
	Roha	Roha-Ashtami	..	1884	Not available	22.0	20.62	23.32	
	Panvel	Panvel	..	1895	40.03	19.5	23.88	23.32	
Ahmednagar	Nagar	Nagar	..	1898c	..	Not stated.	22.91	21.44	c. The supply of water is distributed to one third of the city population.
Poona	Mával	Talegaon Dá..	..	1887	21.45	80.8	21.11	22.30	
	Sholápur	Sholápur	..	1881	30.06	81.88	26.11	20.58	
	Pandharpur	Pandharpur	..	1882	1879	58.8	18.11	20.58	d. Two years' average.
Sátára	Sátára	Sátára	..	1886	32.58	..	48.92	26.30	
Ratnágiri	Ratnágiri	Ratnágiri	..	1881	20.91	No record.	21.91	19.68	e. Partially introduced.
	Rájápur	Rájápur	..	1878	22.6	No record.	19.26	19.68	
	Vengurla	Vengurla	..	1878	20	20.4	Not shown in this report.	19.68	f. Complete.
Dhárwár	Hubli	Hubli	..	1894	26.31	25.7	..	61.76	g. In 1893 the gradient of the channel round the Town was improved to carry away the sullage water that used to accumulate and stagnate round the Town.
Ahmedabad	Daskroi	Ahmedabad	1893e..	1891f..	43.04	45.21	24.36	21.19	
	Virangám	Virangám	..g	..	41.35	60.26	25.19	21.19	
	Dholka	Dholka	..	1884	36.074	25.25	25.62	21.19	
Karáchi	Karáchi	Karáchi	1895	1884	47.62	35.15	17.70	15.30	h. The result of better registration.
Hyderabad	Hyderabad	Hyderabad	..	1879i..	28.91	...	6.19	9.15	i. The old engines of the Fort lift have been replaced by new ones during the year.
Shikárpur	Sukkur	Sukkur	..j	1895	30.984	28.70	25.43	19.09	j. A project for improving the present defective drainage is under the consideration of the Municipal Board.
Násik	Yeola	Yeola	..	..	...	...	..	..	k. The cause of excess mortality is due to plague in 1898. Excluding that year the average death-rate would be 27.71.
Surat	Surat	Surat	..	..	...	...	..	..	The water-supply works are under construction.
	Ránder	Ránder	..	..	...	...	..	..	

105. The Bombay Village Sanitation Act of 1889 has been introduced in 17 other villages during the year 1898, making a total of 299 since the introduction of the Act in the year 1895. At Andersal in the Násik Collectorate the Act has been suspended for the present. In the village of Mirajgaon in the Ahmednagar Collectorate the Sanitary Act was introduced in 1895, but the people of the village having objected to the establishment of the sanitary committee the proclamation was cancelled in 1896 in accordance with clause 3 of Section 6 of the Act. In May 1898 the Act was re-introduced into the village and a committee established under Part II without funds. The following table contains the names of the villages and the date of the introduction of the Act :—

Collectorate.	Táluka.	Village.	Date.	Collectorate.	Táluka.	Village.	Date.
Khándesh	Páchora	Páchora, Krishnápur	1897	Násik—contd.	Niphád	Chándori	1897
	Chálisgaon	Chálisgaon	1896			Sukene	..
	Jáunner	Jáunner	..		Sinnar	Saykheda	..
	Blusával	Badwada	..			Pandhurli	..
		Varangaon	..			Wadangli	..
Násik	Chándor	Walneir	1898			Wáwi	..
		Pimplad	..			Deopur	..
	Násik	Makhmalabad	1897			Shaha	..
	Dindori	Khedgaon	..			Panchale	..
		Workhed	..			Dápur	..
	Niphád	Niphád	..			Dubere	..
		Pimpalgaon Baswant	..			Thangaon	..
		Ozar	..		Igatpuri	Ghcti Budruk	..
		Lasalgaon	..		Yeola	Nagarsal	..
		Vinchur	..			Mukhed	..
			..			Patole	..

Working on the modified form of the Act sanctioned in Government Resolution No. 1030, dated 6th March 1896, General Department.

Collectorate.	Taluka.	Village.	Date.	Collectorate.	Taluka.	Village.	Date.
Násik—contd.	Yeola ..	Andersal ...	The extension of the Act has been suspended for the present.	Sátára—contd.	Tásgaon ..	Palas ...	1895
	Násik...	Bhagur ...	1895			Kupwad... ..	"
		Deoláli ...	"			Hingangaon ...	"
	Dindori ...	Dindori... ..	"	Ratnágiri ...	Khed ...	Akalkope ...	1897
		Janori ...	"		Dápoli ...	Khed ...	"
		Mohadi ...	"			Veshvi ...	"
		Wani ...	"			Velas, peth Ban-	"
	Chándor ...	Chándor ...	"			kot ...	"
	Nandgaon ...	Nandgaon ...	"		Málvan ..	Málvan ...	1896
	Kalvan ...	Kalván ...	"	Belgaum ...	Athni...	Ainapur... ..	"
Thána ...	Kalyán ...	Budlapur ...	1896			Kudchi ...	"
	Dahánu ...	Chinchni ...	1895		Chikodi ...	Sanakeswar ...	"
	Máhim ...	Tárapur... ..	"			Chikodi ...	1895
Kolába...	Pauvel ...	Karanja ..	1898		Gokák ...	Yadwad... ..	"
		Taloje ...	1897		Khánapur ...	Bidi ...	"
	Mángaon ...	Goregaon ...	"	Dhárwár ...	Kalghatgi ...	Mishrikot ...	1898
	Karjat ...	Khalapur ...	1896		Hubli... ..	Nulvi ...	1897
		Karjat ...	1895		Bankápur ...	Hulgur ...	"
		Dahiwalí ...	"		Karággi ...	Hathimattur ...	"
	Roha ...	Neral ...	"		Kod ...	Masur ...	"
		Chavere... ..	"			Hirekerur ...	"
	Mángaon ...	Medhe ...	"			Chickkerur ...	"
	Pauvel ...	Tale ...	"			Havasbhavi ...	"
		Vendhane ...	"		Hubli... ..	Koliwad... ..	1896
Ahmednagar ...	Karjat ...	Mirajgaon ...	1898			Shirguppi ...	"
	Jamkhed ...	Kada ...	1896		Dhárwár ...	Garag ..	1895
	Shrigonda ...	Shrigonda ...	"			Aminbhavi ...	"
	Jamkhed ...	Jamkhed ...	1895		Kalghatgi ...	Kalghatgi ...	"
	Shevgaon ...	Páthardi ...	"		Navalgund ...	Aumgeri ...	1894
	Nevása ...	Nevása Khurd ...	"			Morab ...	"
	Karjat ...	Karjat ...	"			Shelvadi ...	"
Poona ...	Purandhar ...	Balsár ...	1896		Ron ...	Ron ...	"
	Peta Dhond ...	Patas ...	1895		Gadag ...	Mulgund ...	"
		Pargaon... ..	"			Mundargi ...	"
		Dhond ...	"			Hambal ...	"
	Indápur ...	Nimbgaon ...	1897			Almel ...	1896
		Bhigwan ...	"			Hippargi ...	"
	Sirur ...	Talegaon Dham-	"			Sindi ...	1895
		dhere ...	"		Bágalkot ...	Bilgi ...	"
		Pabal ...	"			Sirur ...	"
		Malthan... ..	"			Kaládgi ...	"
		Kendur ..	"			Badámi ...	"
		Mandavgan ...	"			Kerur ...	"
	Purandhar ...	Parinche ...	"			Hungund ...	"
		Kikvi ...	"			Amingad ...	"
		Walhe ...	"			Kamatgi ...	"
		Vir ...	"			Gudur ...	"
	Peta Dhond ...	Yewat ...	"			Indi ...	"
		Rahu ...	"			Tambe ...	"
		Pimpalgaon ...	"			Salatgi ...	"
		Warwand ...	"			Chadachyan ...	1895
		Mangaon ...	"			Horti ...	"
	Haveli ...	Chinchvad ...	"			Atharga ...	"
		Aundh ...	"			Tádvalga ...	"
		Parwati... ..	"			Honwad ...	"
		Khed Shiwapur ...	"		Bijápur ...	Bábleshwar ...	"
		Charoli Budruk ...	"			Kakhandaki ...	"
		Som Kalbhar ...	"			Sárwad... ..	"
		Wanawdi ...	"			Mamdapur ...	"
		Ghorpadi ...	"			Bijjargi ...	"
		Chikhli ...	"			Muddebihal ...	"
		Otur ...	"			Nalatvad ...	"
		Narayangaon ...	"			Talikot ...	"
		Pimpalwandi ...	"			Bágevádi ...	"
		Ale ...	"			Managati ...	"
		Belhe ...	"			Nidagundi ...	"
		Rajuri ...	"			Yalwar... ..	"
		Awasri Khurd ...	"			Kolhar... ..	"
		Chakan ...	"			Ukhali ..	"
		Chas ...	"			Mulwad ...	"
		Wafagaon ...	"				"
	Bhimthádi ...	Supa ...	"				"
		Loni ...	"				"
		Pandare... ..	"				"
		Morgaon ...	"				"
		Wadgaon ...	"				"
		Rawangaon ...	"				"
Sholápur ...	Pandharpur ...	Kasegaon ...	1895				"
Sátára ...	Válva... ..	Shirala ...	1897				"
	Khatav ...	Pussesavli ...	"				"
	Válva... ..	Kassegaon ...	1895				"

The Act has not yet been formally introduced into the villages although the notifications have been eventually confirmed.

Kanara
Surat ...

Broach ...

Kaira...

Collectorate.	Táluka.	Village.	Date.	Collectorate.	Táluka.	Village.	Date.
Kaira—contd....	Mehmadabad.	Linhunj ...	1893	Karachi—contd.	Johi—concl.	Digh "Mathin".	1893
		Wanthanwali ...	"		Sehwan	Jhanghár ...	"
	Mátar ...	Badas ...	"			Bajar ...	"
		Naeka ...	"		Tatta ...	Jerruck ...	"
	Thásra ...	Thásra ...	"			Sonda ...	"
		Kálsar ...	"		Sehwan	Bhan ...	1892
	Kapadvanj ...	Antroli ...	"			Talti ...	"
		Lasundra ...	"		Dadu...	Dadu ...	"
		Kathlal ...	"			Sita ...	"
	Nadiád ...	Chuklasi ...	"			Phaka ...	"
		Alina ...	"			Pat ...	"
	Borsad ...	Anklao ...	"		Sakra...	Gharo ...	"
		Virsad ...	"			Sakro ...	"
	A'nand ...	Sarsa ...	"		Jati ...	Sando Bandar ...	"
		Karamsod ...	"		Shahbandar ...	Chuhar Jamali ...	"
Panch Mahals...	Jhálod ...	Limbdi ...	1897	Hyderabad ...	Hyderabad ...	Tando Kaisar ...	1895
	Kálol ...	Vejalpur ...	1893		Tando Bago...	Tando Bago ...	"
	Hálol ...	Hálol ...	"		Dero Mohbat ...	Matli ...	"
	Jhálod ...	Jhálod ...	"		Guni ...	Bulri ...	"
Ahmedabad ...	Dholka ...	Gadag ...	1896		Badin ...	Tulhar ...	"
		Chalada ...	"			Badiu ...	"
		Koth ...	"			Nindoshahir ...	"
	Daskroi ...	Uwarsad ...	1895		Hála ...	Ghotina ...	1894
		Bareja ...	"			Lal Udero ...	"
	Sánand ...	Kasandra ...	"		Sakrand ...	Sakrand ...	1893
	Dholka ...	Bavla ...	"			Khári Nakur ...	"
	Parantij ...	Harsol ...	1893		Moro ...	Moro ...	"
	Modása ...	Dhunsura ...	1892		Naushahro ...	Naushahro ...	"
	Dhandhuka ...	Bhadiad ...	"			Bhiria ...	"
	Viramgám ...	Detraj ...	"			Tharu Shah ...	"
	Sánand ...	Sarkhej ...	"		Kandiáro ...	Kandiáro ...	"
Karachi ...	Sehwan ...	Bilavalun ...	1893		Hyderabad ...	Shaik Bhirkio ...	1892
		Arazi ...	"		Shahdádpur ...	Shahdádpur ...	"
	Mánjhand ...	Kachi ...	1896		Hyderabad ...	Tando Jam ...	1891
		Chachar ...	"				
	Mirpur Batoro.	Jhoke ...	"		Nasirabad ...	Nasirabad ...	1895
	Jati ...	Maghalbin ...	1895		Warah ...	Warah ...	1893
	Mirpur Batoro.	Mirpur Batoro ...	1894		Kakar ...	Khairpur Na-	"
		Daro ...	"			than Shah ...	"
	Sujával ...	Sujával ...	"		Mehar ...	Mehar ...	"
	Mánjhand ...	Laki ...	1893		Mirpur ...	Mirpur ...	"
		Amri ...	"		Ubauro ...	Ubauro ...	"
		Lakhá ...	"		Labdaria ...	Dokri ...	1892
		Sanu ...	"		Mirpur ...	Mirpur ...	1893
	Kotri.. ...	Bhian ...	"	Thar and Par-			
		Budhápúr ...	"	kar.			
		Unarpur ...	"		Umarkot ...	Nabisar ...	1892
		Maujhu ...	"		Khipro ...	Khipro ...	"
		Bádá ...	"		Sanghar ...	Sanghar ...	"
	Johi ...	Shah Hassan ...	"		Diplo... ..	Diplo ...	"
		Bahavalpur ...	"		Nagar ...	Nagar ...	"
		Phulgi ...	"		Chachra ...	Chachra ...	"
		Tando Rahim	"	Upper Sind			"
		Khán., ...	"	Frontier.			"

106. In the following statement the names of the districts and tálukas and the number of the selected villages in which the Village Sanitary Inspection Book has been introduced during the year 1898 by Collectors are given. The total number of villages in which the Village Sanitary Inspection Book has been introduced is 3,199. Out of this number twelve books in the Poona District have been written up by the Deputy Sanitary Commissioner, Central Registration District; and 114 books in the Districts of Kánara, Broach, Kaira and Ahmedabad have been written up by the Inspectors of Sanitation and Vaccination. Owing to the absence on leave and deputation of nearly all the Deputy Sanitary Commissioners and to the fact that their places have not been filled by full-time men but only by Civil Surgeons who do no travelling, very little progress has been made in filling in these books.

District..	Taluka.	Number of villages in which the village Sanitary Inspection Book is introduced.	Number of villages in which the village Sanitary Inspection Book has been written up by the Sanitary Department.	Remarks.
1	2	3	4	5
	<i>Northern Division.</i>			
Ahmedabad ...	Daskroi 12 Dholka 13 Dhandhuka 15 Viramgam 26 Parantij 10 Modasa Peta Mahals. 4 Sanand 5 Gogha Mahál ... 6		14	
		91	...	
Kaira ...	Matar 80 Thasra 96 Kapadvanj 87 Nadiad 91 Borsad 89 Anand 72 Mehmabad 58		85	The Collector says :—that the village Sanitary Inspection Book has been introduced into all the villages of the district.
		573	...	
Panch Mahals...	Godhra 20 Kalol 13 Dohad 16 Halol 6 Jhalod 11		...	
		66	...	
Broach...	Broach 109 Vagra 69 Amod 51 Jambusar 87 Anklesvar 105		11	The Collector says :—Village Sanitary Inspection Book has been introduced into all the villages of the district; but the books have been sent for distribution among villages to Sub-Divisional officers on the following dates :—
		421	...	174—To the District Deputy Collector on 4th April 1898.
				227— „ Assistant Collector on 10th December 1898.
				22— „ Assistant Collector on 22nd December 1898.
Surat ...	Olpad 63 Chorasi 6 Bardoli 124 Jalalpur 9 Chikhli 7 Bulsar 26 Pardi 14 Mandvi 10		...	
		259	...	

District.	Taluka.	Number of villages in which the village Sanitary Inspection Book is introduced.	Number of villages in which the village Sanitary Inspection Book has been written up by the Sanitary Department.	Remarks.
1	2	3	4	5
Thána ...	<i>Northern Division—continued.</i>			
	Sálsette ...	7	}	...
	Bassein ...	5		
	Dahánu ...	9		
	Bhiwandi ...	20		
	Váda ...	17		
	Mahim ...	20		
	Kalyán ...	18		
	Murbád ...	25		
	Sháhápur ...	20		
		141	...	
Ahmednagar ...	<i>Central Division.</i>			
	Ahmednagar ...	3	}	...
	Parner ...	4		
	Shrigonda ...	4		
	Karjat ...	4		
	Jámkhed ...	4		
	Sheogaon ...	4		
	Nevása ...	4		
	Ráhuri ...	4		
	Kopergaon ...	4		
	Sangamner ...	3		
	Akola ...	4		
		42	...	
Khándesh ...	Dhulia ...	2	}	...
	Amalner ...	2		
	Erandol ...	3		
	Páchora ...	5		
	Chálisgaon ...	1		
	Pimpalner ...	3		
	Nandurbár ...	1		
	Taloda ...	1		
	Sháháda ...	3		
	Sindkheda ...	4		
	Shirpur ...	1		
	Chopda ...	3		
	Sávda ...	4		
	Bhusával ...	5		
	Jalgaon ...	4		
	Jámner ...	4		
		46		

District.	Táluka.	Number of villages in which the village Sanitary Inspection Book is introduced.	Number of villages in which the village Sanitary Inspection Book has been written up by the Sanitary Department.	Remarks.
1	2	3	4	5
	<i>Central Division—continued.</i>			
Násik ...	Násik ...	14	}	...
	Sinnar ...	13		
	Igatpuri ...	36		
	Dindori ...	12		
	Niphád ...	40		
	Chándor ...	12		
	Yeola ...	17		
	Málegaon ...	51		
	Nándgaon ...	7		
	Báglan ...	20		
	Kalvan ...	19		
	Peint ...	4		
		245	...	
Poona ...	Junnar ...	6	}	12
	Indápur ...	6		
	Khed ...	7		
	Sirer ...	9		
	Purandhar ...	5		
	Bhimthadi ...	17		
	Haveli ...	13		
	Mával ...	4		
		67	...	
Sátára ...	Karád ...	28	}	...
	Válva ...	19		
	Sátára ...	25		
	Vái ...	8		
	Jávli ...	12		
	Khánápur ...	10		
	Koregaon ...	9		
	Mán ...	8		
	Pátan ...	25		
	Khatáv ...	25		
	Tásgaon ...	8		
	Peta Khandála ...	2		
	„ Malcolmpeth ...	1		
	„ Shirála ...	12		
		192	...	
Sholápur	Sholápur ...	30	}	...
	Bársi ...	9		
	Mádha ...	25		
	Karmála ...	10		
	Pandharpur ...	10		
	Sángola ...	15		
	Málsiras ...	10		
		109	...	

District.	Táluka.	Number of villages in which the village Sanitary Inspection Book is introduced.	Number of villages in which the village Sanitary Inspection Book has been written up by the Sanitary Department.	Remarks.
1	2	3	4	5
	<i>Southern Division.</i>			
Belgaum	Belgaum ...	4	...	
	Chikodi ...	27		
	Athni ...	29		
	Gokák ...	19		
	Parasgad ...	6		
	Sampgaon ...	12		
	Khánápur ...	5		
	Hukeri Mahál ...	15		
		117	...	
Bijápur	Indi ...	10	...	
	Sindgi ...	24		
	Bijápur ...	22		
	Bágevádi ...	25		
	Muddebihál ...	25		
	Bágalkot ...	24		
	Bádámi ...	25		
	Hungund ...	18		
		173	...	
Dhárwár	Dhárwár ...	5	...	
	Hubli ...	5		
	Navalgund ...	6		
	Gadag ...	9		
	Bankápur ...	5		
	Rannebennur ...	5		
	Hangal ...	5		
	Karajgi ...	5		
	Kalghatgi ...	5		
	Kod ...	6		
	Ror ...	6		
		62	...	
Kánara	Kárwár ...	34	4	
	Ankola ...	12		
	Kumta ...	22		
	Honávar ...	24		
	Siddápur ...	33		
	Sirsi ...	84		
	Supa ...	10		
	Yellápur ...	13		
	Bhatkal Peta ...	13		
	Mundgod Peta ...	12		
	Haliyál ...	18		
		275	...	

District.	Taluka.	Number of villages in which the village Sanitary Inspection Book is introduced.	Number of villages in which the village Sanitary Inspection Book has been written up by the Sanitary Department.	Remarks.
1	2	3	4	5
	<i>Southern Division—continued.</i>			
Ratnágiri ...	Vengurla ...	...	}	...
	Málvan ...	...		
	Deogad ...	1		
	Bijápur ...	1		
	Ratnágiri ...	16		
	Sangameshwar ...	9		
	Chiplun ...	2		
	Khed ...	1		
	Dapoli ...	7		
	Peta Mandangad ...	4		
	Peta Guhagar ...	3		
		44	...	
Kolába ...	Alibág ...	13	}	...
	Pen... ..	6		
	Panvel ...	8		
	Karjat ...	5		
	Roha ...	4		
	Mángaon ...	12		
	Mahád ...	9		
	Peta Nāgothna ...	4		
	„ Uran ...	3		
	„ Khálápur ...	2		
		65	...	
	<i>Sind Division.</i>			
Karáchi ...	Karáchi Sakro ...	5	}	...
	Tatta ...	...		
	Ghorábári ...	...		
	Shahbandar Jati ...	5		
	Sujával Mirpur Batoro ...	5		
	Ketri Mánjhand ...	13		
	Sehwan ...	7		
	Dádu ...	6		
	Johi ...	9		
		50	...	
Hyderabad ...	Hyderabad ...	10	}	...
	Guni ...	6		
	Badin ...	2		
	Tando Bágo ...	3		
	Dero Mohbat ...	3		
	Tando Alahyar ...	19		
	Shahdádpur ...	5		
	Hála ...	2		
	Sákrand ...	10		
	Moro ...	10		
	Nausháhró ...	14		
	Kandiáro ...	8		
		92	...	

District.	Táluka.	Number of villages in which the village Sanitary Inspection Book is introduced.	Number of villages in which the village Sanitary Inspection Book has been written up by the Sanitary Department.	Remarks.
1	2	3	4	5
	<i>Sind Division—continued.</i>			
Shikárpur ...	Shikárpur ...	...	}	...
	Sukkur ...	...		
	Nausháhro ...	...		
	Rohri ...	...		
	Ghotki ...	1		
	Mirpur ...	1		
	Ubauro ...	2		
	Lárhána ...	...		
	Labdarya ...	1		
	Kambar ...	...		
	Ráto-Dero ...	...		
	Mehar ...	1		
	Kakar ...	2		
	Nasirabad ...	3		
		10	...	
Thar & Párkar .	Umarkot ...	6	}	...
	Chachro ...	5		
	Khipro ...	5		
	Sánghar ...	4		
	Thar ...	...		
	Párkar ...	...		
	Mirpur Khás ...	14		
	Dipla ...	1		
	Nagar ...	2		
	Mithi ...	1		
		38	...	
Upper Sind Frontier.	Jacobabad ...	6	}	...
	Thul ...	3		
	Káshmor ...	7		
	Shahdádpur ...	5		
		21	...	
	Total ...	3,199	...	

SECTION X.

PERSONAL PROCEEDINGS AND GENERAL REMARKS.

107. The year 1898 has witnessed a continuance of the plague in the Bombay Presidency and is chiefly remarkable for its spread in the Southern Marátha Country. A brief account of its progress in the Presidency is appended.

The Sanitary Department has been much disorganised during the year owing to the Deputy Sanitary Commissioners and Inspectors being called away by Government for other purposes and no men being supplied to take their places.

108. A mixed Commission consisting of three Medical men from England and two members of the Indian Civil Service, with a Secretary, also a Civilian, was appointed and commenced its work on 28th November 1898.

109. The Committee was directed to enquire into—

1. The origin of the different outbreaks of plague.
2. The manner in which the disease was communicated.
3. The effect of curative serum.
4. The effect of preventive inoculation.

All purely medical questions.

110. The control of the plague operations was, during the year, under the direction of a member of the Indian Civil Service who was termed the Plague Commissioner.

111. In the course of the year 4 Native States have been permitted to maintain their own vaccination establishments. This means that they appoint their own vaccinators and supervising staff, and all that the Sanitary Department have to do with them is that the Sanitary Commissioner and his Deputies can inspect the work from time to time. This will mean very little control over the vaccinators, as owing to the large areas in their charge, Deputy Sanitary Commissioners cannot often inspect, and the vaccination will deteriorate.

112. The camps which had been kept open to afford relief to workers (two in the Sholápur and one in the Poona district), till the harvest was assured and work was obtainable, were closed finally on the 28th October 1898.

113. The City of Bombay Improvement Trust Bill was passed into law, and under it a Board has been appointed on which three Medical men have seats. The first meeting was held on 24th November 1898. It will probably take some time before any results are arrived at, and, in my opinion, one method of preventing overcrowding would be to prohibit the building of any more factories or mills or any concern employing a large amount of labour in the Island of Bombay, unless the owner or company will put up sufficient and suitable accommodation for their employés, not necessarily in the compound, but within reasonable distance.

114. Last year a very important sanitary measure was directed to be adopted by Government in Government Resolution No. 4512, in the General Department, dated 19th August 1898, and the introduction of a "Village Sanitary Inspection Book" was ordered in such villages only as may be approved by the Commissioner of the Division in which they are situated. This measure, which will result in great sanitary progress, should be extended to all villages.

115. It is to be hoped that Government will bear in mind the need of strengthening the Sanitary Department and add to the staff a Bacteriologist as soon as funds permit, and take the first steps towards founding a Sanitary Institute or Institute of Public Health on the lines suggested in my report for 1897.

116. If the latest methods of dealing with sewage are to make any headway and secure public confidence, a Bacteriologist to keep on experimenting and controlling operations, will be absolutely necessary.

117. Owing to the regulations for combating plague, the registration of deaths has been rendered much more accurate, and this increased accuracy should be kept up even when the plague has passed away. Also a good deal can be done to encourage the registration of births by refusing to accept, after the lapse of a certain number of years, declarations before Magistrates and horoscopes as evidence of age.

The results of the inspections of towns visited during the year is appended.

SHIKARPUR.

Population	...	...	...	...	41,991
Birth-rate	...	...	...	...	41.15
Death-rate	...	...	...	...	37.70
Mortality of children under one year of age per 1,000 births	...	...	...	...	315.39

118. The wells are all inside the town and are liable to contamination. The system of having tanks to which the water is supplied from the wells and from which a system of distribution pipes is laid so as to prevent people coming near the well, should be adopted for all public wells.

The open surface drainage is so far a success that a large quantity of foul water which used to lie in and about the town is disposed of outside, but not far enough away, and the material is too concentrated to be properly utilized for irrigation. All the wells in the town should, if levels permit, be connected up with the system so that the spill can be run off at once. The Deputy Sanitary Commissioner, Sind Registration District, has lately, in consultation with the Municipality, formulated a scheme by which the waste water is to be raised by a Persian wheel and used to irrigate a plot of suitable and properly laid out land, instead of its flowing into the Gulamshah Tank and stagnating there.

A regular survey of the town is required.

The roads are apparently repaired with litter from the town, and old rags and shoes are much in evidence. All such litter should be conveyed to the rubbish dépôt and burnt.

The night-soil is disposed of in trenches, which are fairly regularly laid out but the roads between require repair. It is supposed to be a modified poudrette system, but it would be much better if the Municipality would adopt the advice of the Deputy Sanitary Commissioner and arrange for narrower trenches and a properly laid out dépôt.

The rubbish requires to be properly disposed of and the dépôt better managed.

There is a new meat-market lately built, but the floor should be impervious and some exit made for the washing down water to escape from and flow away.

As there is plenty of room, butchers should not be allowed to sell meat in their own shops.

The beef and mutton slaughter-houses are filthy and should be properly built on a new site with water laid on.

LARKHANA.

Population...	...	...	...	...	12,010
Birth-rate...	...	...	...	...	36.55
Death-rate	...	...	...	...	36.88
Mortality of children under one year of age per 1,000 births.	...	...	...	...	298.41

119. The water-supply is from wells and a canal. The surroundings of the majority of the wells are good, with raised parapets and covers, the water being lifted by a Persian wheel and delivered through a small channel.

Latrines, manure heaps and stables should not be allowed in the vicinity. All the wells in the town, both public and private, should be similarly treated.

The town is clean, but the disposal of rubbish requires more attention. All the street sweepings should be taken to the filth depôt and burnt there and not used to fill up hollows, unless with the concurrence of the Deputy Sanitary Commissioner.

The public latrines require repairs and the night-soil carts are all dirty and inefficient. New ones have been ordered, and in future there should be a monthly parade of the dead-stock to see that all are kept in order.

The filth depôt is well situated and the system good, but the ground should be properly laid out and fenced.

The floor of the goat and sheep slaughter-house has been repaved with bricks, over this cement or some other impermeable material which will prevent soakage and be easily cleaned, should be laid.

The beef slaughter-house is to be paved; it is at present very offensive.

This Municipality have agreed to the introduction of Act I of 1892 into their town and arrangements are being made for this to be done.

POONA.

Population	...	...	...	...	118,657
Birth-rate	...	...	...	...	10·83
Death-rate	...	...	...	...	27·22
Mortality of children under one year of age per 1,000 births.					574·65

120. The sanitary condition of this town has been of late frequently reported on. In consequence of the plague and the measures taken to prevent it, the sanitary condition of the town is much better than it has been for some time past, and whilst the city is divided into three wards, each of which is under the care of an European officer, this state of cleanliness will continue, but no really permanent and lasting work has been carried out as yet.

The water-supply is the same to all intents and purposes as it was five years ago, and only lately have any steps at all been taken with regard to sewerage, by the appointment as a municipal member amongst others, of the Sanitary Engineer and member of the Sanitary Board to devise and carry out a sewerage project. An efficient water-supply scheme should go hand-in-hand with sewerage, but if one of the water-supplies of Poona can be utilized for flushing the sewers, the benefit to the town will be so great that the improvement to the water-supply may be deferred.

A number of cesspools have been built and the sullage is removed in carts and emptied out into the Nagziri Nulláh. The emptying platform and arrangements for washing the carts are good, but to turn this sullage, which is very foul, into a small stream, which is practically stagnant for the greater part of the year, is not a sanitary proceeding, and the sewerage scheme will certainly be a benefit by doing away with this.

The streets and markets are clean. The drain on one side of the market is used as a urinal, and it would be just as well to convert it into an open urinal.

The filth depôt was in proper order and efficiently supervised, and the filth carts are looked after and kept in proper repairs.

NASIK.

Population	...	...	...	...	24,406
Birth-rate	...	...	...	...	22·95
Death-rate	...	...	...	...	33·14
Mortality of children under one year of age per 1,000 births.					273·21

121. The finances of this town being very low, the pay of part of the establishment has been reduced, and I hear the raising of the house-tax is under consideration.

Under these circumstances no large sanitary measures will be undertaken. There is no proper water-supply.

As to sewerage, an intercepting sewer has been laid, but its usefulness is much diminished owing to the old square drains which lead the sullage water into it being frequently blocked up, necessitating their frequent opening, and occasionally the sullage bursts out and finds its way along the road side gutters. Sewers with proper house connections should be laid along the streets leading down to the intercepting sewer as soon as possible.

The surface of the town is clean, but owing to scarcity of bullocks, large masses of garbage are collected at various points and not removed quickly enough. For the same reason the night-soil is not efficiently removed from the public latrines and the night-soil depôt was, when I saw it, in a very dirty state.

The Poudrette manufactured is all sold before the rains, but what is made during the rains is stocked in the open and so is washed down at the back of the shed. A shed on a small plinth should be built in which to store the Poudrette, and proper roads built on the depôt along which the rubbish carts can go to discharge their contents instead of the unfortunate bullocks having to drag heavy carts through a quagmire.

The plague arrangements under the supervision of Major Anderson, the Deputy Sanitary Commissioner of the district, appear to be working satisfactorily: the town being divided into four wards, each supervised by a Superior Officer, with Assistants who enquire into deaths and watch for new arrivals and keep them under observation.

CHA'LISGAON.

Population	...	...	...	...	8,138
Birth-rate	...	...	...	...	44.36
Death-rate	...	...	...	...	25.56
Mortality of children under one year of age per 1,000 births	...	...	...	...	144.04

122. This town has had a Sanitary Committee established in it since 1896, and the President and four members appear to take an interest in the work. The progress made has not been very marked up to the present, but plague and famine must be held accountable for much of the delay.

A sanitary inspection book has been started in the village. The water-supply is as of old, a stream fouled by men and cattle, and 172 small wells in the town, which are for the most part without adequate arrangements for preventing spill water going back into the well or for running it off for some distance from the well.

The side drains are square shaped and end in foul cesspools or the liquid soaks into the ground. The Sanitary Committee, however, are alive to this and propose to employ men, casks and carts to empty these cesspools and put the contents outside the town.

The slaughtering of cattle, goats and sheep is done within the inhabited area on unpaved open spaces.

There are no fixed places for natural purposes and there are 30 private latrines in the town, cleaned by private arrangement. Several burial grounds are on the banks of the stream.

There are no markets. A large weekly bazar is held in a shaded grove to the north-west of the town across the river, and vegetables are sold daily by squatters in the street near the north gate. Meat and fish are sold by the vendors at their own houses except on the big market day.

The Sanitary Committee were advised—

Not to extend the system of open drains till a proper scheme can be drawn up.

To get each house-holder to build an impervious receptacle outside his premises, which the Committee should empty daily.

To remove the slaughtering place outside the town to a spot north-east of it.

To appoint fixed places for natural purposes and not allow private privies to be built without permission and only in accordance with a pattern.

The burial grounds on the river bank to be gradually removed to other places away from the river.

To get a place for the daily vegetable sellers to sit in, so as to prevent their squatting in the road near the cesspools.

The Sanitary Committee have not large funds and improvements have to be done gradually. Up to now seven sweepers have been entertained and the town is swept and the rubbish removed by a contractor, and on my inspection this appeared to be done in a satisfactory manner.

DHULIA.

Population	...	...	...	...	21,871
Birth-rate	...	...	...	...	44.35
Death-rate	...	...	...	...	30.04
Mortality of children under one year of age per 1,000 births	...	...	...	...	194.85

123. This Municipality has done well in hitherto keeping plague out of the town.

The water-supply from Dedargaon tank is fully appreciated by the people, and besides the public stand-pipes, there are 404 house connections.

Of course with the introduction of the water-supply has come the question of sewerage. Plans have been worked out, but the Municipality consider a regular sewage scheme as beyond their means and propose an open surface drainage scheme to be carried out bit by bit as funds are available. I do not at all approve of open surface drains and propose in consultation with the Sanitary Engineer to lay the main pipes of a regular sewerage scheme and do that piecemeal. Some kind of drainage for the waste and foul water is necessary, and in order that there may be as little waste as possible, the Municipality have been advised not to allow any more house connections at present and to cut off the water during the night.

The surface latrines to the east are getting very foul and the sites should be changed.

A new night-soil depôt has been selected; the site is well chosen, but the area has been badly laid out and the disposal of the night-soil and offal is very badly done, and there seems to be no arrangement for cleaning the filth carts.

When land is let for building, the style of building should be provided for, and the earth not allowed to be dug up from the floor to form the walls so as to reduce the floor level below the level of the crown of the adjoining road. Lean to habitations should not be allowed.

Encroachments by the buildings of solid otas over the line of drains should be prohibited.

No earth should be allowed to be dug up from the cattle market. Hollows are made in which water stagnates and they become receptacles for rubbish.

JALGAON.

Population	...	...	...	...	14,672
Birth-rate	...	...	...	...	28.42
Death-rate	...	...	...	...	31.08
Mortality of children under one year of age per 1,000 births—	...	...	...	...	287.77

124. Except for one outbreak, commencing in November 1897 and lasting to end of February of the present year, Jalgaon has been free from plague.

The water-supply from the Mebrun Tank is to be increased and better distributed so that good pressure may be obtained all over the town.

The town is drained by surface drains which are fairly kept, but are open to the usual objections. On the north side a garden has been commenced to utilize the waste water flowing there instead of allowing it to spread over waste land and stagnate. Unfortunately financial difficulties have put a stop to the experiment.

Most of the surface drainage discharges into a nála on the east of the town.

There are an insufficient number of public latrines and the night-soil depôt is badly laid out.

The mutton market has been paved. The beef slaughter-house is very dirty. There is no beef market. Vegetables are sold in the open street and the weekly bazár is held in a large open space to the west of the town.

The huts on Municipal land are as a rule fairly well built in rows and a roadway 20 feet wide provided. Care should be taken that this roadway is not encroached upon nor should huts be permitted to be built across the line.

MA'LEGAON.

Population	...	...	...	...	16,633
Birth-rate	...	...	...	...	43.95
Death-rate	...	...	...	...	45.80
Mortality of children under one year of age per 1,000					
births—	...	...	...	...	190.68

125. Owing to the famine followed by an outbreak of plague this town has made no progress in the larger sanitary works so much needed, and now the want of funds puts a stop to any expenditure.

The water-supply which is chiefly from the river Mosum is kept as clean as can be, and as the hot weather approaches a bund is put across not only to keep back the water, but to provide a rough filter, but the supply gets very scanty. The Municipality allotted a sum of money for a survey to find out the best source of a water-supply for the town from outside, but this had to be diverted to other pressing needs.

There are very few drains and no sewers.

The areas for public resort require more attention. Half of each area should be cultivated as they are getting very foul, and the hedges should be thinned down and a gate put at each entrance to prevent cattle wandering in.

The night-soil depôt requires more attention and the number of bhangies for the private privies is insufficient.

A large increase in building is under contemplation, of small back to back houses intended for the occupation of Momims chiefly. The area is likely to be overcrowded and detailed recommendations have been sent to the Collector.

AHMEDNAGAR.

Population	...	...	...	...	36,031
Birth-rate	...	...	...	...	12.27
Death-rate	...	...	...	...	26.47
Mortality of children under one year of age per 1,000					
births—	...	...	...	...	524.89

126. The great improvement in this Municipality since last report has been the introduction of a properly distributed water-supply from the Wadgaon aqueduct for a portion of the town. This is so much drawn upon by a larger population than the supply was originally estimated for and the rainfall has been so scanty for the last four years that the reserve in the duct has become insufficient. It is clear that the boon is so much appreciated that there would be but little opposition to an extension of the scheme from another aqueduct to the rest of the city, but unfortunately famine and plague have exhausted the Municipal Funds.

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STATEMENT SHEWING VITAL STATISTICS &c. IN EACH COLLECTORATE DURING 1898.

Registration Districts	Collectorates	Area in Square miles	Population	Average population per square mile	Order of Registration			Number of Villages	Number of deaths recorded during the year from										Birth rate per 1000 of population	Deaths rate per 1000 of population	Date of first case of Plague	Date of last case of Plague
					Town	Rural	Total		Cholera	Small pox	Fever	Measles	Dysentery & Diarrhoea	Hydrophobia	Other causes	Total						
Western P. & Central P.	1. Rhinades	3344	4460319	1446.85	4	21	25	2624	16	...	618	17004	230	5504	400	14445	41931	40.74	28.41	1.1.98	28.12.98	
	2. Nank	3349	446087	141.58	2	12	16	1643	71	...	189	9600	1851	5821	284	9586	26851	37.42	31.92	...	...	
	3. Thana	3353	819667	228.73	3	8	11	1524	95	7	63	12002	3326	1968	414	4180	23213	50.17	28.34	...	...	
	4. Bombay City	3354	22	804444	3664911	1	...	...	...	...	...	...	...	...	...	5183	5183	13.08	14.03	...	...	
	5. Solata	3354	594779	274.36	3	8	11	1443	44	15	3	6783	664	1740	238	4632	14063	35.06	23.45	...	...	
	6. Ahmednagar	3356	66766	133.16	2	11	14	1345	12	2	140	3858	333	479	217	10574	18801	55.45	21.74	...	...	
	7. Poona	3348	104449	198.45	2	8	12	1187	60	1	76	13624	1855	4104	243	4625	34228	29.70	22.52	...	...	
	8. Sholapur	3348	75025	165.95	3	7	10	713	80	3	157	5688	1587	4905	288	3266	18864	28.75	21.14	...	...	
	9. Satara	3348	122571	245.89	3	12	15	1348	220	2	23	8063	6918	6327	450	11097	32880	29.67	26.83	...	...	
	10. Nasik	3342	70882	281.86	2	8	10	1808	33	...	38	13605	374	5641	501	5799	21921	24.52	19.82	...	...	
Sind & Baluchistan P.	11. Solapur	4657	10143	217.19	3	7	11	1072	183	87	38	2850	1801	376	373	7746	23540	41.77	...	...	...	
	12. Dhule	4335	10803	231.65	1	13	17	1289	120	4054	771	10910	2764	2781	337	21018	47038	34.86	43.81	...	...	
	13. Dhule	3781	7962	201.02	1	8	10	1110	49	5	99	6575	1190	251	5575	16390	27.80	19.33	...	...		
	14. Kolhapur	19911	44056	194.07	2	11	13	1183	8	79	107	6281	59	680	184	4698	11985	28.76	22.46	...	...	
	15. Satara	14651	44824	390.39	2	8	10	785	35	...	1	7851	1552	631	295	5090	20420	37.35	31.42	...	...	
	16. Brach	14831	34150	235.00	2	6	8	603	19	...	...	9164	424	205	142	5081	13010	40.49	28.72	...	...	
	17. Kara	16019	37123	341.66	1	7	11	879	26	...	1	14614	445	147	301	8831	24439	33.77	28.04	...	...	
	18. Panch Mahals	16113	31331	194.28	2	5	7	634	15	...	1	7483	101	26	104	855	8670	42.53	27.66	...	...	
	19. Ahmedabad	38321	30928	291.02	1	7	9	852	3	...	1	7854	6	391	272	5999	23332	32.92	27.51	...	...	
	20. Karachi	14115	30619	39.75	1	14	15	291	33	...	14	6594	272	430	369	2622	12971	27.45	23.09	...	...	
Sind & Baluchistan P.	21. Hyderabad	4463	58336	104.67	1	13	14	1308	1	...	3	7780	1	429	346	1199	9758	16.36	11.04	...	...	
	22. Shikarpur	5277	31058	98.64	3	14	7	1103	...	...	...	15801	...	276	366	1836	18279	26.74	19.98	...	...	
	23. Thar & Parkar	13230	33401	25.43	1	7	8	250	...	...	...	61	4403	...	2	144	4467	26.32	14.55	...	...	
	24. Upper Sind Frontier	2863	11449	60.94	1	4	5	294	...	...	...	7	2780	...	7	74	3017	26.20	17.38	...	...	
Total for Presidency		704100	1823046	151.62	56	7	120	283	26143	7188	4368	1834	216324	91191	56799	6894	176355	34082	30.94	29.16	1.1.98	31.12.98

SKETCH MAP
TO ILLUSTRATE THE
DISTRIBUTION OF, AND COMPARATIVE MORTALITY
from
PLAGUE
in the
DIFFERENT COLLECTORATES
OF THE PRESIDENCY OF BOMBAY
During the Year
1898

Scale of Miles

STATEMENT indicating the Plague affected Collectorates of the Bombay Presidency and their ratios per 10,000 of population.

Collectorate	Ratio of deaths from Plague per 10,000 of population	Collectorate	Ratio of deaths from Plague per 10,000 of population
Ahmedabad	4.61	Poona	12.76
Ahmednagar	4.06	Sholapur	30.75
Kanara	1.32	Nank	35.20
Bhamburda	1.57	Nasik	39.27
Bhatnagar	3.58	Thana	39.50
Ahmednagar	3.73	Karachi	48.52
Kara	5.10	Satara	56.45
Panch Mahals	8.41	Belgaum	181.16
Kolaba	10.49	City of Bombay	224.89
Shikarpur	12.73	Dharwar	264.58
Broach	15.12		

N.B. Date of first attack.
Figures in circles show the attacks and below the deaths from Plague in 1898.

The town has been divided into twelve wards for the purpose of sanitary administration, and the improved state of the town reflects credit on the Municipality and its Secretary, but still the bhangi service is undermanned, the number of public privy seats insufficient and some of the carts want replacing.

The night-soil depôt is still in its old place. The site has been many years in use and the depôt should now be moved to a fresh site which should be properly laid out and if pondrette is to be manufactured proper pits should be made.

The mutton market and slaughter-house adjoin one another, and are within the inhabited area. The slaughter-house should be moved outside. Unfortunately the town is so surrounded by Cantonment area that there is great difficulty in securing a site at a reasonable distance.

The beef market has been considerably improved, and further improvements are to be carried out.

Animal vaccination as carried on the town continues to give satisfaction and is carried on without friction.

Plague.

127. A map showing the districts and the date of the first case reported is appended, and also a list showing the attacks and deaths from the disease for the year 1898. The figures shown are from returns received in this office and do not tally with returns elsewhere published. In the general returns the deaths are included under the heading "Fever."

128. The following table shows the deaths from plague arranged by Districts and Collectorates:—

Districts.	No.	Collectorates.	Population according to Census of 1891.	Deaths from Plague.				
				1896.	1897.	Ratio per 1,000 of Population.	1898.	Ratio per 1,000 of Population.
Western Registration District.	1	Khandesh ...	1,460,319	5	76	0.05	230	0.05
	2	Nasik ...	841,087	...	1,074	1.28	1,951	2.32
	3	Thana ...	818,967	95	4,156	5.07	3,235	3.97
	4	Bombay ...	806,144	1,803	10,237	12.70	18,130	22.49
	5	Kolaba ...	694,779	15	1,309	2.20	654	1.10
Central Registration District.	6	Ahmednagar ...	887,056	4	386	0.43	233	0.28
	7	Poona ...	1,061,449	39	8,871	8.38	1,855	1.28
	8	Sholapur ...	750,255	1	2,353	3.14	1,557	2.08
	9	Satara ...	1,225,511	...	10,031	8.18	6,918	5.64
Southern Registration District.	10	Ratnagiri ...	1,105,362	...	26	0.02	374	0.33
	11	Belgaum ...	1,011,453	...	444	0.44	16,301	16.12
	12	Dharwar ...	1,050,533	...	38	0.04	27,764	26.43
	13	Bijapur ...	796,286	...	8	...	970	1.23
Gujarat Registration District.	14	Kanara ...	416,156	...	...	...	59	0.13
	15	Surat ...	642,324	21	3,070	4.72	2,552	3.92
	16	Broach ...	341,450	5	9	0.03	424	1.24
	17	Kaira ...	871,529	10	8	...	445	0.51
Sind Registration District.	18	Panch Mahals ...	313,381	...	...	...	201	0.64
	19	Ahmedabad ...	920,928	29	65	0.08	6	...
	20	Karachi ...	561,013	59	3,572	6.37	2,722	4.85
	21	Hyderabad ...	883,836	1	499	0.57	1	...
	22	Thar and Parkar ...	332,401	...	2	...	...	...
	23	Shikarpur ...	915,658	1	716	0.78	...	...
	24	Upper Sind Frontier ...	171,469	...	3	0.02	...	...

Abstract.

Western Registration District ...	4,621,230	1,916	16,853	3.73	24,200	5.35
Central do. do. ...	5,930,793	44	21,667	4.31	10,537	2.09
Southern do. do. ...	3,304,428	...	485	0.15	45,103	13.65
Gujarat do. do. ...	3,097,312	65	3,147	1.02	3,628	1.17
Sind do. do. ...	2,806,777	61	4,792	1.67	2,723	0.95
Total ...	18,820,346	2,086	46,944	2.49	86,191	4.58

129. At the end of 1896 there had been a total of 2,909 attacks and 2,086 deaths from plague, 61,093 attacks and 46,944 deaths were recorded during 1897 and 110,369 attacks and 86,191 deaths in 1898: the table below gives the progress of the disease by months in each Collectorate for the year under report.

No.	Collectorates.	January.		February.		March.		April.		May.		June.		July.		August.		September.		October.		November.		December.		Total.		Number of Towns and Villages affected by Plague.
		Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	Attacks.	Deaths.	
1	Khandesh ...	63	65	90	70	80	68	11	7	...	...	...	...	...	...	...	...	1	...	...	...	21	8	11	13	250	230	16
2	Nasik ...	420	354	203	153	194	60	20	16	...	...	1	...	8	1	316	269	671	479	503	339	172	119	191	161	2,689	1,951	71
3	Thana ...	311	97	549	143	684	261	653	303	241	109	187	137	720	456	1,182	855	357	277	148	141	144	103	258	233	5,374	3,235	95
4	City of Bombay ...	2,920	2,934	4,760	4,498	4,973	2,613	2,613	2,171	811	524	371	150	336	203	643	543	921	684	867	709	271	209	580	472	19,863	18,130	1
5	Kolaba ...	95	68	161	125	209	238	70	73	32	25	4	6	...	...	1	...	10	7	8	6	16	16	104	93	779	654	45
6	Ahmednagar ...	171	152	110	102	34	23	1	1	...	...	...	...	1	1	1	1	...	...	17	10	30	23	33	15	398	333	12
7	Poona ...	646	436	206	137	94	42	23	13	6	4	2	...	4	1	39	29	103	61	462	323	281	239	76	65	1,942	1,355	60
8	Sholapur ...	716	497	474	370	116	80	18	9	...	...	1	...	97	62	203	77	123	65	219	106	106	89	185	112	2,288	1,557	80
9	Satara ...	1,125	778	540	402	338	137	117	96	148	120	115	74	259	183	558	300	1,201	822	2,403	1,987	1,706	1,459	770	560	9,340	6,918	229
10	Ratnagiri ...	16	13	43	27	190	146	221	167	9	11	...	...	...	...	1	1	10	7	2	1	1	1	...	...	482	374	33
11	Belgaum ...	402	225	260	174	257	129	108	110	163	116	281	211	1,124	853	2,313	1,638	4,159	2,968	7,268	5,352	4,355	3,227	1,817	1,305	22,547	16,301	183
12	Dhárwar ...	6	1	3	1	7	6	9	7	33	22	118	81	585	319	2,076	2,324	6,545	5,304	9,870	7,766	9,300	7,754	4,983	4,160	34,494	27,761	120
13	Dijapur ...	...	...	13	4	11	6	1	...	...	...	...	...	...	...	...	...	32	21	296	247	422	288	508	414	1,373	979	49
14	Kiarna ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13	8	10	11	11	8	42	32	76	69	8
15	Surat ...	654	655	815	577	560	471	188	163	87	51	110	71	376	274	344	245	143	114	38	23	18	12	3	1	3,306	2,552	95
16	Broach ...	3	2	...	...	1	1	7	4	1	1	2	2	23	13	209	151	162	118	63	61	97	22	52	49	580	424	19
17	Kaira ...	20	26	36	17	10	7	9	3	1	1	...	...	...	...	7	4	23	13	34	29	140	112	326	234	612	445	28
18	Panch Mahals ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	52	35	55	49	164	117	272	201	15
19	Ahmedabad ...	6	3	2	2	...	...	1	1	...	...	...	...	...	...	1	...	...	...	21	13	10	10	8	4	3,553	2,722	33
20	Kandah ...	7	1	...	...	3	...	800	570	2,076	1,034	368	272	138	64	98	78	25	14	...	...	...	...	...	...	2	1	1
21	Hyderabad ...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
22	Thar and Parkar ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
23	Shikarpur ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	Jacobabad ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for the Presidency ...		6,203	8,254	9,811	7,907	9,031	4,928	3,773	3,699	2,759	1,881	1,003	3,671	2,490	8,892	6,515	11,600	10,952	22,301	17,227	17,129	13,777	10,201	8,030	110,369	86,191	1,188	

130. *Khándesh*.—Plague prevailed to a limited extent up to May, the greatest mortality (79) being in February. From May up to November there was only 1 attack. In November and December there were 35 attacks and 21 deaths. No town circle was affected. The total for the year was 16 villages affected, 289 attacks and 230 deaths.

131. *Násik*.—The outbreak, which had begun in August 1897, reached its maximum (354 deaths) in January and was on the decline in February. After that month the mortality fell rapidly and the collectorate was free in May. There were a few cases in July, and in August the deaths amounted to 269; they increased during September and declined during October and November, but in December there was a slight rise, and the month showed a mortality of 161. The town circles of Násik and Sinnar and Málegaon town suffered during the first three months of the year—the latter rather severely during January. In all 71 towns and villages were affected and there were 2,699 attacks and 1,951 deaths.

132. *Thána*.—Was affected during the whole year. In January the disease was on the increase, and this continued until May, when there was a fall, which, however, only lasted during June. In July there was a large and sudden increase in the mortality, and the deaths continued to increase during August, but in September there was a substantial fall, which continued during October and November; in December there was a slight rise. The mortality was heaviest during the latter half of the year. There were a few cases in nearly every month of the year in the town circles of Thána and Bádra; the former had most in August, September and October, and the latter from April to September. Bhiwndi town was severely affected; the disease commenced in April and ended in October and was at its height in August: there were in all 1,789 cases and 1,261 deaths. The total for the year was 95 towns and villages, 5,374 attacks and 3,235 deaths.

133. *Bombay City*.—As in 1897 the disease was prevalent during the entire year. In 1897 it had reached its minimum in July, but from that month it showed an increase up to the end of the year; this, although slight up to the end of November, was more decided during December and in January was very marked. The maximum deaths (4,973) were reached in March, in April there was a fall to more than half this number, and in May and June there was a very considerable fall. In July the mortality increased and continued to do so until October, the greatest number of deaths during this period being (709) during the latter month; it fell greatly in November but rose again in December. The lowest mortality was in June, and by far the greatest number of deaths occurred during the first half of the year. The total for the year was 19,863 attacks and 18,130 deaths; but there is very little doubt that many cases and deaths escape registration.

134. *Kolába*.—There was a little plague in Kolába up to July. The highest mortality being (238) in March. No cases occurred in July, only 1 case in August and very few in September, October and November, and these were chiefly imported. In December there were 93 deaths. In all there were 46 towns and villages affected and 779 attacks and 654 deaths.

135. *Ahmednagar*.—In January there were 152 deaths, after which they fell rapidly until in April the district was practically free and continued so until October, in which month, and until the end of the year, there were a few deaths, but they never amounted to more than 23 in any one month. Ahmednagar town circle was affected during the early months of the year; there were 101 deaths in January, but after this the disease rapidly declined. The totals for the year were 12 towns and villages, 398 attacks and 333 deaths.

136. *Poona*.—The disease, which had prevailed considerably, chiefly in the City of Poona, during the latter part of 1897, had in January shown a great and sudden fall, which continued until in May the district was practically free and remained so until August, in which month there was slight rise, which increased in October and November but fell in December; during this period the highest mortality (328) was in October: there were 65 deaths in December. In January Poona City was at the end of a severe epidemic which had commenced in

August; during the succeeding month the epidemic rapidly declined and the city was free at the end of April. In all there were 60 towns and villages affected, and 1,942 attacks and 1,355 deaths during the year.

137. *Sholapur*.—Plague had commenced in September 1897, and had continued to increase until the end of the year. In January there was, as in the Poona District, although not to the same extent, a great and sudden fall which continued until in April there were only 9 deaths and in May none. In June the district was practically free, but in July the deaths rose, continued to do so in August, and fluctuated up to the end of the year. The greatest number of deaths (166) during this period was in October. Sholapur town was slightly affected during January and February, this was the end of a sharp outbreak which had occurred towards the end of 1897. The totals for the year were 80 towns and villages, 2,288 attacks and 1,557 deaths.

138. *Sátára*.—This Collectorate was affected throughout the year. The disease which had commenced in July 1897 was on the decrease in December, and this decrease continued into the present year and reached its minimum (96) in April. The mortality then rose, but showed no very great increase until August when the rise became more considerable and in October had reached the maximum (1,987); it fell in November and December and in the latter month had fallen to 560. All the talukas except Malcolm Peit were affected, but nearly one-third of the deaths recorded were in the Sátára taluka. Sátára town in January was at the height of an epidemic which had commenced in October 1897; in February the mortality fell considerably, and in May the town was free from the disease; but there was a slight epidemic in the latter part of the year. In the whole Collectorate 220 towns and villages were affected, and there were 9,340 attacks and 6,918 deaths.

139. *Ratnágiri*.—In the first half of the year there was some plague, but the latter half was practically free. The highest mortality (167) was in April. There were 33 towns and villages affected, and 482 attacks and 374 deaths occurred.

140. *Belgaum*.—With the exception of the City of Bombay and Dhárwár this was the Collectorate which suffered most during the year. The disease commenced in October 1897, in December it had reached the maximum mortality of that epidemic (275), and then began to decline gradually until June, in which month it showed a rise which continued until the maximum (5,352) was reached in October; a fall then set in which continued up to the end of the year. Belgaum town was affected throughout the year; in January an epidemic which had commenced in October was at its height, but in February there was a considerable fall which continued; cases, however, kept on occurring and they considerably increased in August and the town went through a much more severe epidemic than the previous one. The totals were 183 towns and villages affected, 22,547 attacks and 16,301 deaths.

141. *Dhárwár*.—In 1897 there were a few cases every month from October to the end of the year, and this continued up to June of the present year in which month there was a rise in mortality which continued during July and August, and in September was very pronounced. The maximum (7,784) was reached in November, and it was not until December that there was any decided improvement. This Collectorate was the one which suffered most severely in the whole Presidency. Belgaum had more towns and villages affected, but the mortality was much greater in Dhárwár and was 26.4 per mille. In Dhárwár town the disease commenced in July, reached its maximum in October and in December had almost entirely disappeared. There were 120 towns and villages affected and there were 34,494 attacks and 27,764 deaths.

142. *Bijapur*.—There were a few deaths during February and March, but none between that month and September; in the latter month the disease recommenced and gradually increased up to the end of the year. There were 414 deaths in December. The totals were 49 towns and villages affected, and 1,373 attacks and 979 deaths.

143. *Kánara*.—There was no plague until August when 8 towns and villages became affected, and there were 76 attacks and 59 deaths distributed over the remainder of the year.

144. *Surat*.—In this Collectorate the plague was present in every month of the year both in 1897 and 1898. In January the disease was rising and the maximum (577) was reached in February, after which the mortality declined until May. In June and July it again rose; in August there was a slight decrease and after that a rapid one, until at the end of the year the Collectorate was practically free. In January the City of Surat was in about the middle of an epidemic which was on the decline; there were, however, a good many cases up to the end of March, but during April the disease died out. In all there were 95 towns and villages affected and 3,366 attacks and 2,552 deaths.

145. *Broach*.—There were only a few scattered cases until July, when there was a slight increase followed by a larger one in August; however, this was not maintained beyond September, and the mortality declined with fluctuations up to the end of the year. The town of Broach was slightly affected during the latter part of the year as was also Anklesvar. There were 19 towns and villages affected, and 580 attacks and 424 deaths.

146. *Kaira*.—There were a few cases up to June, but they were all imported, and no local cases occurred until September. From that month the disease increased up to the end of the year, but the greatest number of deaths in any one month amounted to only 234. There were 28 towns and villages affected, and 612 attacks and 445 deaths.

147. *Panch Maháls*.—The disease appeared in October and increased up to the end of the year, but there were in all only 272 attacks and 201 deaths in 15 towns and villages.

148. *Ahmedabad*.—There was no indigenous plague in this Collectorate, only 10 imported cases and 6 deaths being reported.

149. *Kardáchi*.—In Sind the disease was, with the exception of two imported cases in the Hyderabad Collectorate, exclusively confined to the Collectorate of Karáchi and the only part of this district which was affected, with the exception of 8 cases at Kotri, was the town of Karáchi in which there were 3,253 cases and 2,543 deaths. There were in addition 322 cases at various places in the Collectorate, but they all originated in Karáchi town. The outbreak in the town of Karáchi was sudden and sharp; it commenced in April and in May had reached its height, in June there was a considerable fall in mortality and this was very much more marked in July and August, but a few deaths occurred monthly up to the end of the year.

150. *Hyderabad*.—In this Collectorate the only cases reported were 2 imported ones.

151. In the whole Presidency there were 86,191 deaths from plague and 1,188 towns and villages were affected as compared with 46,944 deaths and 912 affected towns and villages in 1897.

The number of deaths from plague in 1897 was nearly exactly the same as the cholera deaths during the worst cholera year in the previous nineteen years.

The heaviest mortality from cholera during the last twenty years occurred in the year 1897, but the plague deaths during 1898 exceeded this by 29,082.

152. The parts most affected were the Collectorates of Dhárwár, City of Bombay and Belgaum, and the rates of plague deaths per mille in them were 26·4, 22·4 and 16·1 respectively. Sátára came next with a rate of 5·6 and then Karáchi, Thána and Surat with rates which ranged from 4·8 to 3·9 per mille; Násik and Sholápur had rates of 2·3 and 2·08, respectively: the rates of the remaining affected Collectorates were much lower. As already mentioned, the only parts of Sind which returned indigenous cases were the towns of Karáchi and Kotri; the former suffered severely, but the latter gave only 8 cases. Except for a few imported cases the Collectorate of Ahmedabad was entirely free. With the foregoing exceptions all the Collectorates in the Presidency were more or less affected. The rate per mille for the various Registration Districts were as follow:—Western 5·35, Central 2·09, Southern 13·65, Gujarát 1·17 and Sind 0·95.

In January there were 6,203 deaths, and during February and March there were much about the same number. In April the deaths fell considerably and continued to fall until the minimum (1,003) was reached in June; they rose a little in July, and in August and September there was a more distinct rise, and in October they reached the maximum (17,227), after which there was a fall in November, and this continued and was very much more marked in December.

153. The year 1898 was remarkable for:—A very low birth-rate up to the end of July, one considerably above the average for the last four months of the year, and a rate for the whole year much below the normal; a very low cholera mortality; a largely increased Plague mortality; and a low death-rate from diseases—excluding Plague—registered under the heading “Fever.” Excluding Plague, the year was one of the healthiest during the last eleven years. Prices of the chief food-grains although still somewhat high in the Deccan were very much lower than in the previous year: in Khándesh they were as regards some food-grains lower than the average and this was also the case in Gujarát. The low death-rate, the increasing birth-rate, and the reduced mortality from dysentery and diarrhoea show that during the year the people were rapidly recovering from the effects of the Famine of the previous year.

154. The Department was greatly undermanned during the year, but those Deputy Sanitary Commissioners who were on duty performed their duties in a very satisfactory manner. All the Deputies were at one time or another on some duty in connection with Plague, either in addition to their own duties or in a special appointment, and rendered able service.

155. Lieut.-Colonel J. W. Clarkson, the permanent incumbent, performed the duties of Sanitary Commissioner during the year—except for three months when he was on leave and Lieut.-Colonel A. W. F. Street, D.S.O., acted for him—and before his departure on furlough in January last wrote Section X of this report with the exception of the concluding paragraphs, and the paragraphs on plague.

156. My Assistant Mr. Keess during a very busy year in the office performed his duties in a satisfactory manner.

A. W. F. STREET,

Lieutenant-Colonel, I. M. S.,

Acting Sanitary Commissioner

for the Government of Bombay.

Bombay, 5th May 1899.

APPENDIX I.

ANNUAL REPORT OF THE SANITARY BOARD FOR THE YEAR 1898.

1. *Preliminary.*—Owing to the expenditure incurred by Municipalities in connection with the plague, and to their reduced incomes from the restriction of trade due to the plague, almost every Municipality has shelved the consideration of all important sanitary works; and unless Government come to their assistance by relieving them of the whole, or of the greater part, of the debts they have incurred in connection with plague, it is certain that this stagnation will continue for many years. In every District Municipality there are a certain number of members who are opposed to progress, and to any taxation, except in the cause of schools; and their influence is materially strengthened when the Municipality is already in debt. We would also suggest that Government should deal more liberally with these Municipalities in the way of loans for important sanitary works. In the North-West Provinces, Punjab, and Madras, a Municipality can always not only get a Government loan for a sanctioned work of this nature, at 4 to 4½ per cent., for 20, or even 30 years, but also in most cases they get a large grant-in-aid; whilst in this Presidency these Municipalities are now forced to go to the open market, where 6 to 12 per cent. is demanded; and even the lower of these rates is prohibitory, with their small means. Moreover, no Municipality in this Presidency has ever got a grant-in-aid, although it is known that without this material assistance few of the important sanitary works in other Provinces could have been carried out. Such an assistance is a powerful lever in inducing a Municipality to agree to the extra taxation required for these works; and we earnestly hope that Government may be pleased to assist future schemes in this Presidency, as they are assisted in other Provinces. Under the continued pressure of the Plague authorities, the general state of improved cleanliness, noticed in the last report, has been maintained.

2. *Shikárpur.*—Nothing has been done here; and, in fact, the Municipality passed a retrograde resolution stopping the construction of the system of gutters by which the waste water from the numerous wells in the crowded town, should be removed outside.

3. *Sukkur.*—Nothing has been done here. The water-works engines have been much neglected, and serious repairs will soon be necessary.

4. *Hyderabad.*—With very great difficulty the Municipality were induced to order the urgently wanted new engines for the river pumping station at Giddu, by means of a temporary loan from Government. The new engines are to be Triple Expansion Worthington's; and they are expected to begin working during the hot season.

Plans and estimate for the remaining portion of the water-works, as indicated in last year's report, have been prepared by the Sanitary Engineer; and as the finances of this Municipality are fairly good, it is to be hoped that they will take up these items in due course; but the management of this Municipality is not good.

The Municipality have recently got plans and estimates for a complete and satisfactory drainage scheme, but this has now been shelved.

5. *Ahmedabad.*—The Municipality have recently got plans and estimates from Mr. Baldwin Latham for the completion of their drainage scheme, at a cost of about 16 lakhs, exclusive of house-connections. The position of the proposed pumping station has had to be altered, and several details have had to be revised; and the Municipality are considering about the engagement of a Special Engineer, competent to revise the estimates, and to superintend the work. They have applied for permission to raise a loan of 8 lakhs, and are prepared to proceed with the works as soon as Government have approved of the plans.

The experiment of pumping some of the sewage to the lands under the Chandola Tank has been successful. These fields are able to get plenty of irriga-

tion water, and the sewage provides them with the necessary manure at a small cost.

If the land in the vicinity of the existing small sewage farm can be got at a reasonable cost, it is proposed to give up the 300 acres got from Government about two years ago, at a distance of 3 miles from the city; as the cost of the rising main to that site will be heavy.

6. *Kaira*.—The water-supply of this town is a serious matter, as most of the wells, and the adjoining river Watrak for at least the worst portion of the year, only give brackish water. The Sanitary Engineer recently had a series of levels taken, and sketched out proposals for a scheme costing about Rs. 80,000, to supply 11,000 people, which is now under consideration by the local authorities.

7. *Mehmadabad*.—This town is 7 miles east of Kaira, and suffers under similar difficulties as to its water-supply. Similar measures were taken, and a proposal for a scheme costing about Rs. 70,000, to supply 9,000 people, is now under consideration of the local authorities.

8. *Yeola*.—As stated in the last year's report, this work is being carried out by the Public Works Department, and it is understood that the Municipality paid the amount of the estimate into the Government account two years ago. The Executive Engineer states that not much progress has been made with the work, and that the indent for straight pipes and engines has only just gone in. Looking to the time usually taken in complying with indents, by the Home Stores Department, the town will not get its water even by the next hot season; and the Board would urge that special steps should be taken to ensure compliance with the indents earlier than usual, as was done in the case of the Kirkee water-supply. The necessity for the water has been acknowledged repeatedly.

9. *Ahmednagar*.—The water-supply of this town is yearly becoming a more and more serious question. Lying, as it does, on a high tableland at about the boundaries of the N. E. and S. W. monsoons, it is liable to a recurring deficiency of rainfall. For some reason, the level of the sub-soil water during the last 10 or 15 years has been steadily falling, affecting all the wells, and also the old aqueducts on which the city relies for its water. The only solution is the completion of the Kápurwádi Tank, at a cost of about $1\frac{1}{2}$ lakhs for the work left undone at the end of the last famine. This tank lies over the upper portion of two of the old aqueducts, one of which will feed the City, and the other the Cantonment, and Remount Depôt. The water will percolate down into the aqueduct galleries, so that filter beds will be unnecessary. The Municipality have prepared a scheme, at a cost of a little over two lakhs, for pumping, and distributing this water under pressure, throughout the town; and it is believed that the Executive Engineer similarly proposes to deal with the water of the other aqueduct, for Cantonments. The prevalence of enteric in the Cantonments, and the recurrence of cholera in Ahmednagar, and in Bhingar which adjoins the Sadar Bázár, points to the urgent necessity of doing away with the insanitary dipping wells and cisterns. The Municipality has already spent a loan of a little over a lakh on pumping and distributing water from one of the other aqueducts to about one-third of the town, and have incurred a further debt of about the same amount for plague expenses; their normal revenue is only about three quarters of a lakh, and for the last two years it has been much less, so that probably the most they could do would be to carry out the pumping and distribution of the water to the rest of the town. From the increasing scarcity of sub-soil water during the last two years, it is almost certain that, unless the next rains there are very favourable, there will have to be a move on the part of many of the 40,000 inhabitants of Ahmednagar, and of the 10,000 of Bhingar and the Sadar Bázár; and possibly also on the part of the troops, and of the large number of horses in the Remount Depôt. If Government could see their way to completing the tank, which has already been partially done as a famine work, it would solve what promises to become a very serious matter in the near future.

10. *Kirkee*.—The water-supply project for this Cantonment is now nearly completed, and filtered water, under pressure, has been supplied to Gov-

ernment House, Ganesh Khind, and to most of the area to be served, for some months. This satisfactory result, it is understood, was due to the Home Stores Department having, owing to the despatch of urgent telegrams, complied with the indents very much sooner than is usually the case.

11. *Poona*.—Government have directed the Sanitary Engineer to get up a complete drainage scheme for this city; and one for the adjoining crowded Sadar and Sholapur Bázars, which contain about one-fifth of the population of the adjoining city; the relative figures being about 22,400, and 127,000, respectively, at present. It is hoped that this will be ready for consideration during the monsoon.

12. *Wai*.—The Executive Engineer carried out a series of levels, and drew out rough estimates for two alternative schemes, which have been practically shelved by the Municipality.

13. *Belgaum*.—The Military Authorities have now declared themselves in favour of a combined water-supply project, which the Municipality also are inclined to favour if they are relieved of their Plague debt; and it is to be hoped that Government in the Public Works Department will shortly examine the plans and estimates.

14. *Akalkot*.—This water-supply project is fast approaching completion, and it is hoped that the engines will be at work during this next hot season, *i. e.*, within less than a year of the final sanction. The work has been carried out under the superintendence of the Sanitary Board.

15. *Sassoon Hospital, Poona*.—The plans and estimates for the urgently required improvements to this building have been drawn out by the Sanitary Board in consultation with the Civil Surgeon, and have been submitted to Government.

16. *Sholapur*.—The Municipality still continue the dangerous practice of relying on practically one engine for the water-supply of this important town; and even this engine is now overworked. If it breaks down, even temporarily, the consequences will be disastrous.

During the last two years the Executive Engineer has been getting up a drainage project, but he reports that the survey is not yet complete and that he proposes to take up the elaboration of the project after July.

17. *Sátára*.—The question of Government taking over the management of the water-supply, in the interests of the inhabitants, both of the town and of Cantonments, is still under discussion. The health of both communities would be benefited by such a measure, as the Municipality are quite unable to supervise the miles of open channel from the Kás Tank, so as to prevent pollution of the supply; and yet the Municipal Commissioners seem to consider it derogatory to their dignity to allow the Government Executive Engineer to supervise this work for them, although his supervision would cost them nothing. If Government buys up the Municipal rights, the provision of filter beds, and of a properly piped water supply in the town, should be insisted on, in place of the present insanitary dipping cisterns. From the nature of the site, a pressure of several hundred feet can probably be got in *two* places, close to the town; and with proper piping, this might be utilised for electric light and power machinery, and still leave an ample head for the water-supply.

18. *Miscellaneous*.—The Board considered and advised upon the plans for the Lunatic Asylums at Nowpáda and Ratnágiri, and also advised on the preliminary proposals for the water-supply of Kundgal.

19. The Board again represented to Government the advisability of giving them executive, as well as consultative, powers; so that they can both initiate, and supervise the construction of, important sanitary works of water-supply and drainage, for Municipalities; as the experience of past years proves that Municipalities can only be induced to take up, and carry through, such measures by constant pressure and urging; and Executive Engineers have not the time

for this work. We are more than ever convinced that it is only in this way that the construction of such urgently required works can be pushed on.

20. As regards the other Municipalities mentioned in our last Report, we can only say that nothing whatever has been done regarding the points noticed therein.

21. The constitution of the Board was the same as last year; but in January 1899 Lieutenant-Colonel Clarkson, I. M. S., went on furlough, and was relieved by Lieutenant-Colonel Street, I. M. S.

A. W. F. STREET, Lieut.-Colonel, I. M. S.,
Acting Sanitary Commissioner for the
Government of Bombay
J. C. POTTINGER, M.I.C.E.,
Sanitary Engineer and Member
of the Sanitary Board.

APPENDIX II.

No. 775 of 1899.

ANNUAL REPORT OF THE HEALTH OFFICER OF THE PORT OF
BOMBAY FOR THE YEAR ENDING 31ST DECEMBER 1898.

I.—SUMMARY.

1. The following table gives a summary of the shipping and health of the Port of Bombay and of the work in connection therewith for the year ending 31st December 1898 :—

Table No. 1.

Vessels including country craft.	Number of vessels inspected.	Number of persons inspected including crew on vessels.	Number of vessels diseased.	Number of persons vaccinated.	Number of persons segregated or rejected.	DISEASES AND NUMBER OF CASES OF EACH.							
						Plague.	Cholera.	Small-pox.	Measles.	Scarlatina.	Chicken-pox.	Enteric fever.	Suspicious fever.
Entered	18,081	285,743	20	150	4,277	5	...	8	3	3	5	1	2
Left	53,392	921,828	4	...	14,911	96	...	...	...	...	...	...	...
In Harbour during the year ...	25	...	25	...	...	17	5	...	1	...	5	...	...
Total ...	71,498	1,207,571	49	150	19,188	118	5	8	4	3	10	1	3
1897 ...	72,808	1,313,117	69	161	42,552	169	30	11	4	9	...	1	...

2. It will be seen from the above table that 71,498 vessels of all sorts with 1,207,571 crew and passengers were examined during the year. The number includes every person who left Bombay by sea during the year, as well as those who arrived from the ports of Western India between Karáchi and Bhatkal, inclusive, between the dates of 1st January and 20th April 1898. After the latter date and up to the end of the year, arrivals from infected ports only were subjected to a medical examination.

3. The total number of plague cases detected during the year 1898 was 118.

II.—INCOMING VESSELS.

4. Table No. 2 furnishes further particulars regarding vessels which entered the port during the year 1898 :—

Year.	Total number of steamers and square-rigged vessels which entered Bombay Harbour from Ports other than Indian Ports.	Number of passengers.	Total number of native sailing craft which entered Bombay Harbour from Ports other than Indian Ports.	Number of passengers.	Total number of steamers and square-rigged vessels which entered Bombay Harbour from Indian Ports.	Number of passengers.	Total number of native sailing craft which entered Bombay Harbour from Indian Ports.	Number of passengers.
a	b	c	d	e	f	g	h	i
1898... ..	557	28,484	281	215	1,542	269,725	40,190	1,986
1897... ..	551	27,605	204	191	1,583	289,154	36,831	2,217

5. There is no complete record kept of the crew of incoming vessels, and in the case of native sailing craft, none of either crew or passengers; hence the

total number of persons who arrived by the vessels shown in the above table cannot be given. Of the 300,410 passengers shown in columns *c, e, g* and *i*, 18,466 were troops, 1,342 pilgrims from Mecca, and the remaining 280,602 chiefly passengers from ports near Bombay.

Table No. 3.

6. The following table gives the number of ships which had infectious disease on board on or before entering the Harbour :—

Class of vessel.	Number of ships.	Total number of crew and passengers.	DISEASES AND NUMBER OF CASES OF EACH.								Number of persons vaccinated.
			Plague.	Small-pox.	Measles.	Scarlatina.	Chicken-pox.	Enteric Fever.	Beri. Beri.	Suspicious Fever.	
Troop ships ...	6	9,350	...	...	2	3	1	1	...	...	...
Pilgrim ships ...	2	526	...	6	...	...	...	...	...	...	139
Other vessels ...	12	2,445	5	2	1	...	4	...	2	3	11
Total ...	20	12,321	5	8	3	3	5	1	2	3	150
1897 ...	73	7,033	14	3	3	6	...	1	...	...	111

7. Vessels which became infected while in port are not shown in the above table but are noticed in table No. 6.

8. The cases of measles, scarlatina, chicken-pox and enteric fever shown in the foregoing table as having occurred on board the troop ships were landed and isolated in the Military Cantonment at Colába. The small-pox cases were removed to the Arthur Road Hospital on shore and such of the persons amongst the crew and passengers as were found unprotected by previous vaccination or small-pox were vaccinated. The total number of persons thus vaccinated was 150.

9. Out of the 12 other vessels referred to in the above table, five entered the port with a case of fully developed plague on board of each of them. Four of the vessels were Shepherd's coasting steamers from infected ports in close proximity to Bombay.

Table No. 4.

10. Showing the number of vessels, crew and passengers examined on arrival at Bombay :—

Months.	NUMBER OF VESSELS INSPECTED.			NUMBER OF PERSONS INSPECTED.									NUMBER OF PERSONS AGGREGATED.		
	Number of steam-ships and square-rigged vessels.	Number of native sailing craft inspected.	Total.	Passengers.		Crew.		Total.			Passengers.	Crew.	Number of crew and passengers.		
				Steam-ships and square-rigged vessels.	Country craft.	Steam-ships and square-rigged vessels.	Country craft.	Number of passengers.	Number of crew.	Number of crew and passengers.					
January...	181	4,249	4,430	11,311	335	3,427	28,097	11,646	31,524	43,170	2,986	...	2,986		
February ..	102	4,793	4,895	13,279	209	2,852	32,089	13,483	34,941	48,429	415	1	416		
March ..	121	4,378	4,499	21,595	663	3,919	29,681	22,358	33,600	55,958	461	7	468		
April ..	91	3,766	3,847	24,896	323	3,412	26,996	25,219	36,408	55,627	189	2	191		
May ..	46	...	46	7,133	...	3,079	...	7,133	3,079	10,312	88	...	88		
June ..	88	...	88	16,038	...	3,996	...	16,038	3,996	20,004	66	...	66		
July ..	37	...	37	2,411	...	2,550	...	2,411	2,550	4,961	3	...	3		
August ..	36	...	36	1,383	...	2,739	...	1,383	2,739	4,122	...	...	...		
September ..	37	...	37	3,523	...	2,734	...	3,523	2,734	6,247	7	...	7		
October ..	39	1	39	7,544	...	2,803	6	7,544	2,809	10,413	2	...	2		
November ..	36	...	36	9,275	...	2,478	...	9,275	2,478	11,753	20	...	20		
December ..	51	40	91	11,681	161	2,922	183	11,842	3,105	14,947	30	...	30		
Total ..	864	17,217	18,081	130,069	1,691	26,931	117,052	131,760	153,983	185,743	4,267	19	4,277		

11. The examinations from 1st January 1898 up to 20th April 1898 include all arrivals from ports on Western India between Karachi and Bhatkal inclusive, as all such ports were more or less plague-infected up to that date. From 21st April until the end of the year, only vessels arriving from infected Indian Ports and Hongkong were examined before the issue of pratique.

III. OUTWARD VESSELS.

Table No. 5.

12. Shows the number of outward vessels and their passengers and crew inspected month by month from 1st January to 31st December 1898.

Months.	NUMBER OF VESSELS INSPECTED.			NUMBER OF PERSONS INSPECTED.							REGISTERED NUMBER OF PERSONS REJECTED.					Total number of crew, and passengers rejected.
	Number of steamship and square-rigged vessels inspected.	Number of native sailing craft inspected.	Total.	Passengers.		Crew.		Total.			Passengers.		Crew.			
				Steamship and square-rigged vessels.	Country craft.	Steamship and square-rigged vessels.	Country craft.	Number of passengers.	Number of crew.	Number of passengers and crew.	Rejected.	Sent to hospital for observation.	Rejected.	Sent to hospital for observation.		
January ...	202	4,659	4,861	43,206	5,420	10,848	31,468	48,632	42,316	90,948	1,463	506	0	80	2,055	
February ...	191	4,622	4,813	40,487	342	10,037	32,346	41,829	42,383	83,212	2,234	110	...	51	2,305	
March ...	220	4,555	4,775	37,398	578	12,633	31,373	27,976	41,006	81,982	856	606	8	63	1,530	
April... ..	225	6,134	6,359	33,230	312	12,222	43,341	33,602	55,563	89,165	601	523	...	58	1,179	
May	249	6,537	7,086	33,453	49	12,913	46,080	31,562	59,611	93,115	802	712	...	158	1,672	
June	185	1,768	1,953	19,227	32	10,224	13,809	19,259	21,033	43,292	381	105	21	30	537	
July	154	912	1,066	11,800	813	9,393	7,044	12,613	16,442	29,055	116	65	20	67	297	
August ...	162	2,238	2,400	17,400	3,629	9,476	15,658	21,029	25,128	46,157	421	152	64	63	639	
September ...	192	3,259	3,451	26,985	4,620	10,731	21,447	31,618	32,178	63,796	578	211	34	60	885	
October ...	243	4,442	4,685	46,579	6,169	12,938	23,033	52,748	40,971	93,719	871	218	33	98	1,219	
November ...	237	5,320	5,657	41,750	6,517	12,473	33,210	48,297	45,631	93,930	726	231	13	50	1,026	
December ...	250	6,136	6,386	51,933	7,788	13,557	40,109	59,741	51,666	113,407	990	323	7	110	1,425	
Total ...	2,510	50,842	53,392	403,541	36,305	137,464	344,518	439,846	481,982	921,828	10,063	3,700	212	875	14,911	

13. During the year under report the total number of outward bound vessels, crew and passengers examined was 53,392, 481,982, and 439,846, respectively. Out of the 53,392 vessels shown in the foregoing table, 381 vessels left with 30,991 crew and 26,997 passengers for Aden, Red Sea, and Europe; 402 vessels, with a total of 30,742 crew and 12,693 passengers, for ports out of India other than Aden, Red Sea and Europe, and the remaining 52,609 vessels, with 430,249 crew and 399,386 passengers, for Indian Ports, including Burma.

14. Since the 1st September 1898 the inspection of the crew and passengers of outward bound vessels which sailed to ports other than Indian Ports has been made by day on shore prior to their embarkation, as directed by the Venice Sanitary Convention. The ship's company was again inspected on board before the issue of a Bill of Health immediately before departure from this port.

15. The Bill of Health form B., prescribed by the Government of India in 1890 and issued to vessels sailing for foreign ports, was accordingly revised by the addition of the following words in manuscript after "passengers or crew" in the last line of the 1st clause of the bill, *viz.*, "who have been examined by day on shore before embarkation and found free from plague."

16. During the year the sanitary condition of all outward bound vessels was well looked after by the Commanders and Agents. The fore-castle was painted or limewashed before departure. The inside of the crew's boxes was similarly dealt with and the clothing and bedding of the crew were exposed

to the sun. Bilges in native craft were generally found clean and were carefully attended to. The holds of all vessels in ballast were thoroughly cleaned and in most cases limewashed or disinfected with a solution of carbolic acid.

Arrangements were made with the P. & O. Company by which the bedding and clothing of the native crew on ships bound to Europe was disinfected.

17. The overcrowding of crew's quarters, which was brought to the notice of Government in previous reports, was not marked during the year under report. During the year 1897 the overflow pipes from the water tanks on board of some vessels were found to discharge directly into the bilges. This insanitary state of affairs, noticed during the year 1897, was observed during the past year. During the months of November and December the water tanks of all vessels were examined, and out of 163 ocean-going steamers 14 were found to have the overflow pipes from the water tanks leading into the trough in connection with the bilges.

IV.—INFECTIOUS DISEASE ON VESSELS IN THE HARBOUR.

18. The following table includes all steamers, square-rigged vessels and native craft which became infected while lying in the port, and is inclusive of those given in table 3, which became infected while at sea, or whose passengers developed plague after arrival :—

Months.	STEAMERS.								BUGGALOWS, TONIES, PROWS, STEAM LAUNCH, &C.								TOTAL NUMBER OF CASES OF INFECTIOUS DISEASE IN THE BOMBAY HARBOUR.									
	Number of Ships.		Cholera.		Small-pox.		Chicken-pox.		Measles.		Plague.		Native Craft.		Cholera.		Small-pox.		Chicken-pox.		Measles.		Plague.		Total number of infected Vessels.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
January...	1	...	...	...	...	...	...	...	1	1	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
February...	...	...	...	...	...	...	...	...	...	...	...	...	9	3	3	...	...	...	...	...	...	...	...	...	...	...
March...	2	...	...	...	4	...	...	...	1	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...
April...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
May...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
June...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
July...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
August...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	...	...	...	...	...	...	...
September...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
October...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
November...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
December...	2	...	...	...	1	...	...	...	1	...	...	...	4	1	1	...	...	...	...	...	...	...	...	...	...	...
Total...	25	5	5	...	...	...	5	...	1	...	...	...	17	12	...	...	...	...	...	...	...	...	...	...	...	...

19. All the above vessels, including those on Table 3, were thoroughly disinfected in accordance with the rules laid down in the Venice Sanitary Convention.

V.—DISINFECTION OF SHIPS AND GENERAL HEALTH OF THE SHIPPING.

20. During the year 1898 the total number of infected vessels of all sorts, disinfected under the personal supervision of the Port Health Officer or his staff, assisted by the Water Police, was 49. The Resident Transport Officer arranged for carrying out the Port Health Officer's recommendations for the disinfection of transports in which cases of infectious diseases occurred.

21. The general health of the Harbour population was fairly satisfactory during the year. The various hospitals in the city admitted during that time 814 persons connected with the shipping. This number of admission is exclusive of plague. Of these, the St. George Hospital admitted 485 Europeans,

of whom 18 died; the Jamsetji Jijibhoy 54 natives, of whom 3 died; and the Gokuldas Tejpal 275 natives, of whom 19 died.

22. No deaths occurred from the effects of cleaning bilges of ships during the year, but the Coroner of Bombay held one inquest on the body of a lad who had died from suffocation while cleaning an engine-well on board the S.S. "Dean" and 13 inquests on persons who had met with their deaths from accident on board the ships in the Harbour and in the Docks.

VI.—RED SEA PILGRIM TRAFFIC.

23. Owing to the existence of plague in Bombay, the Pilgrim Traffic between the Indian Ports and Jeddah was stopped during the year 1898. Accordingly no vessels with Mecca pilgrims left this port for Jeddah during the year.

24. During the year 1,342 pilgrims returned from Jeddah *via* Aden and other routes by vessels enumerated in the following table:—

Table of Returning Pilgrims.

Name of Ships.	Date of Arrival.	Number of pilgrims.	From what route the pilgrims arrived.	Number of Deaths during voyage.	Cause of Death.	Number of cases of Infectious Disease on Board.	Nature of Death.	Number of persons vaccinated
S. S. "Jubeda"	17th April 1898	241	Jeddah	1	Chronic dysentery and emaciation.	...	...	...
"Naseri"	19th June 1898	18	Jeddah <i>via</i> Aden	...	No Diary.	1	Small-pox.	6
"Poseidon"	22nd June 1898	53	Jeddah <i>via</i> Aden	...	Do.	...	...	...
"Mohamadi"	12th July 1898	38	19 from Jeddah and 19 <i>via</i> Aden.	...	Do.	...	...	...
"Kilwa"	21st July 1898	285	Jeddah <i>via</i> Muscat	...	Do.	...	...	...
"Naseri"	28th July 1898	220	Jeddah	1	Chronic diarrhoea. Senile decay.	...	...	...
"Pemba"	25th August 1898	51	Jeddah <i>via</i> Muccala and Muscat	...	No diary.	...	...	...
"Mohamadi"	25th August 1898	19	Jeddah	...	Do.	...	...	...
"Jubeda"	30th August 1898	340	Jeddah	4	1 chronic dysentery and old age. 1 chronic diarrhoea. 1 Small-pox and 1 jumped over-board.	4	Small-pox.	133
"Naseri"	22nd September 1898	47	Jeddah <i>via</i> Muccala and Muscat	...	...	...	...	...
"Naseri"	13th November 1898	30	Jeddah <i>via</i> Aden	...	...	...	...	...
Total	.....	1,342	.....	6	...	5	...	139

25. The baggage of all returning pilgrims shown in the foregoing table was disinfected by the Port Health Officer, under the orders of the Government of India. The pilgrims were not allowed into the town, but were sent direct from the ship to their homes in batches, by rail at the expense of Government.

VII.—EMIGRATION TRAFFIC.

26. During the year the following ships left Bombay with emigrants for the Uganda Railway and Seychelles:—

No.	Name of Steamer.	Date of Departure.	Port of Destination.	Number of Emigrants examined.
1	S. S. "Bovldana"	21st January	Mombassa	...
2	"Nevasa"	22nd February	Do.	...
3	"Goa"	25th February	Do.	...
4	"Patna"	9th October	Seychelles	...

27. The emigration traffic was closed from Bombay on account of plague, and no vessels with emigrants sailed after the 26th February 1898, from the Port of Bombay with the exception of the S.S. "Patna" which left the Port on 9th October 1893 with 274 emigrants for the Seychelles Government under Government of India Notification, No. 1999—12-26, dated 23rd September 1898.

VIII.—SANITARY STATE OF THE HARBOUR AND FORESHORE.

28. No remarks are made on the state of the Harbour and Foreshore as they were not inspected during the year, owing to pressure of work.

IX.—PLAGUE.

29. Owing to a marked recrudescence of the plague in January, an exodus set in, and 30,878 more people left Bombay by sea than arrived during that month. They were chiefly mill-hands and labourers who had their homes along the coast in close proximity to Bombay.

30. In order to prevent the spread of plague to the coast ports, Government directed that in addition to the inspection before leaving Bombay the people were to be inspected a second time at the port of arrival. Native craft were prohibited from taking native passengers, so that the inspections at the coast ports could be carried out at the places where steamers called.

31. It has been our experience that in almost all cases of plague a slight increase of temperature exists for a few days before the more marked signs and symptoms show themselves. It is for this reason that the most accurate means should be taken to obtain the correct temperature of suspected individuals at the examinations.

32. Temperatures have been taken in the axilla since March with half minute thermometers. These temperatures are not as a rule accurate. If they are taken in the early morning the skin of the natives has been cooled by exposure to the air, and if they are taken during the heat of the day the skin is also cooled by evaporation owing to perspiration. It is for these reasons that a slight rise of temperature in a native cannot under the circumstances under which they are examined by us be detected unless it is taken in the mouth. This had been the custom at one time. Every possible precaution had been taken to remove sanitary or sentimental objections. The thermometers were washed in carbolic acid lotion and afterwards in a stream of water from a tap. Each caste had its own set of thermometers and temperatures were taken by one of their own caste people, but the system had to be abandoned owing to caste prejudices.

33. At our inspections during the year we came across instances where passengers suffering from a rise of temperature tried to reduce it immediately before the examination by wetting their bodies with water, sucking ice or taking doses of phenacetine.

34. Owing to the diminution of plague along the coast ports near Bombay, inward sea inspections from such places were suspended on 20th April and only vessels coming from infected ports were examined.

35. When the third marked epidemic of plague in Bombay commenced towards the end of the year, arrangements were made with the P. & O. Company for the disinfection of all the clothing and bedding of the native crew prior to sailing. This disinfection has now been extended to the clothing and bedding of all native crew bound to any port out of India, and is working satisfactorily.

36. The newspapers reported cases of plague from Bombay at Foreign Ports from time to time, but subsequent enquiry in almost all cases proved that they were not cases of plague. They were generally natives who had suffered from chronic enlarged glands and who had been so unfortunate as to be suffering from an attack of malarial or other fever at the time the ship arrived in a foreign port. In order to avoid such cases being classed as plague, we insist on the passenger providing himself with a medical certificate which he can produce at a foreign port. In the case of one of the crew full particulars are entered in the official log-book, so that the captain may be able to produce it as evidence to show that the disease is not due to plague. This is done with a view to save the vessel and passengers unnecessary restrictions at ports outside of India.

37. The P. and O. Steam Ship "Caledonia" was reported to have had plague at Suez in November last. The following is the history :—

"At our examination on the 19th November 1898, we found a man with fever. He was sent for observation, and the doctor in charge of the hospital reported that it was plague. The information was telegraphed to Suez by Government and on the arrival of the vessel at that port two native crew suffering from fever were removed from the ship. Reuter telegraphed as an item of news that they were plague cases. We wrote to Egypt for details

of the cases, and at the same time asked for a list of plague cases imported from Bombay during the year 1898. The President of the Quarantine Board replied that neither of the men removed from the 'Caledonia' could be considered to have developed plague, and further, that no genuine case of plague had been imported from Bombay during the year 1898."

38. Another case of plague was reported in the newspapers to have been imported into Ceylon from Bombay. This turned out to be a man with chronic enlarged glands. He had been a resident in Bombay, but left by rail for Tuticorin, where he embarked for Colombo. The Medical Officer at Colombo wrote to say that the man was not suffering from plague.

39. Efforts were made by certain newspapers to trace the outbreak of plague in Madagascar to Bombay. At first it was stated that it had been brought by native craft, but this theory was given up. It was then stated that it had been imported by a rice-laden steamer from Bombay. The last steamer which left Bombay for ports in Madagascar, either directly or by first calling at an intermediate port, sailed on the 9th August 1897. She had a doctor on board. As far as we know, plague broke out in Tamatave in November or December 1898, that is fifteen months after the last steamer left Bombay for Madagascar.

40. During the year 17 cases of plague were found on vessels and native craft in the Harbour. Besides these, 96 cases were prevented from sailing on vessels leaving the port, and 5 were found on vessels coming from infected ports close to Bombay.

41. A special sanitary police force was found necessary to assist the Port Health Staff in carrying out the provisions of the Venice Convention. Government, therefore, sanctioned 12 European and 50 Native Police for such work and placed them under the orders of the Port Health Officer.

42. The Port Health Staff—many of whom have been engaged on Special Harbour inspection since February 1897,—have performed their duties successfully, and it is owing to the careful way in which they performed those duties, that few vessels have been put to inconvenience or suffered vexatious restrictions or delay at foreign ports during the year. One of my staff, Dr. Davur, contracted and died of plague in January last. He was conscientious and hard-working, and I regret his loss very much.

43. The Superintendent, Preventive Service, Customs Officers and Harbour Police rendered the usual valuable assistance which they have ungrudgingly given to the Port Health Staff since the plague broke out.

44. Owing to the increase of clerical work the office establishment had to be strengthened. My Head Clerk, Mr. Ramrao G. Kamalakar, has performed his duties to my entire satisfaction.

45. The launch was under steam from daylight till dark daily, except during the short time she was under repairs in the Government Dockyard. This necessitated a double crew, all of whom gave satisfaction.

J. CRIMMIN, V. C.,

Major, I.M.S.,

Port Health Officer, Bombay.

*Bombay Port Health Office, }
Town Custom House, }
Dated 14th April 1899.*

APPENDIX III.

Statements showing the daily recorded Deaths from Cholera and the daily Meteorological Conditions in the following Cities and Towns during the year 1898.

Month and Date.	Deaths from Cholera recorded on each day.	TEMPERATURE OF AIR IN THE SHADE.			HUMIDITY. 8 A.M.	WIND.		Rainfall in Inches.
		Highest Maximum.	Lowest Minimum.	Range.		Direction.	Rate per hour.	
Bombay City.								
1st January 1898	2	87.0	66.2	20.8	73	E.N.E.	11	...
2nd " "	1	82.4	65.0	17.4	77	N.E.	9	...
4th " "	1	79.9	65.1	14.8	79	N.E.	11	...
7th " "	1	80.4	65.8	14.6	63	N.E.	10	...
8th " "	1	83.4	65.7	17.7	79	E.N.E.	9	...
11th " "	2	87.0	66.0	21.0	63	E.N.E.	11	...
12th " "	1	84.4	68.2	16.2	47	E.S.E.	12	...
13th " "	1	83.5	67.8	15.7	70	E.N.E.	9	...
14th " "	1	86.2	68.7	17.5	66	E.N.E.	12	...
15th " "	1	86.9	68.8	18.1	67	E.N.E.	12	...
16th " "	1	86.9	68.8	18.1	67	E.N.E.	12	...
17th " "	1	90.8	70.1	20.7	55	E.N.E.	12	...
18th " "	1	89.3	69.2	20.1	74	E.N.E.	9	...
19th " "	1	88.9	70.0	18.9	63	E.N.E.	9	...
21st " "	1	85.6	68.8	16.8	66	E.N.E.	10	...
23rd " "	1	83.8	68.2	15.6	75	E.N.E.	6	...
24th " "	1	86.9	68.5	18.4	76	N.E.	7	...
26th " "	1	85.4	69.3	16.1	71	N.E.	11	...
28th " "	1	85.2	69.6	15.6	75	E.N.E.	8	...
2nd February	2	84.4	68.4	16.0	70	N.N.E.	10	...
6th " "	1	81.9	70.0	11.9	80	E.N.E.	8	...
8th " "	2	81.3	71.0	10.3	78	E.	8	...
10th " "	1	82.4	70.0	12.4	63	W.	21	0.17
12th " "	1	78.5	67.0	11.5	65	E.N.E.	9	...
17th " "	1	82.3	70.4	11.9	86	N.	12	...
18th " "	1	82.1	71.2	10.9	86	N.	11	...
21st " "	2	82.1	66.8	15.3	67	N.E.	10	...
24th " "	1	83.6	71.7	11.9	78	S.E.	7	...
25th " "	2	84.0	73.4	10.6	86	N.E.	6	...
26th " "	1	85.4	73.0	12.4	79	N.E.	11	...
27th " "	1	88.4	73.0	15.4	74	E.S.E.	7	...
28th " "	1	86.8	74.8	12.0	83	S.E.	4	...
1st March	2	86.4	73.9	12.5	86	Calm.	6	...
3rd " "	1	80.4	62.3	18.1	32	N.N.E.	20	...
7th " "	1	84.3	71.0	13.3	82	N.N.E.	6	...
8th " "	2	84.3	73.2	11.1	81	S.S.E.	6	...
19th " "	1	86.8	75.3	11.5	73	N.	15	...
22nd " "	2	87.7	73.3	14.4	74	N.N.W.	12	...
26th " "	1	86.4	75.4	11.0	83	S.	8	...
28th " "	1	86.6	76.4	10.2	73	N.	10	...
30th " "	1	86.8	76.0	10.8	81	Calm.	6	...
6th April	1	87.3	75.9	11.4	76	N.N.E.	9	...
9th " "	1	88.4	75.0	13.4	76	S.S.E.	7	...
12th " "	1	87.4	76.0	11.4	87	E.N.E.	7	...
14th " "	1	88.4	79.4	9.0	87	N.N.W.	8	...
18th " "	2	88.2	77.4	10.8	77	S.	7	...
19th " "	2	89.1	79.2	9.9	73	S.	10	...
8th May	1	90.2	81.0	9.2	64	W.	9	...
10th " "	1	91.0	81.6	9.4	69	S.S.W.	9	...
12th " "	2	90.3	79.4	10.9	70	W.S.W.	7	...
14th " "	1	90.1	81.2	9.8	67	N.N.W.	8	...
15th " "	1	91.2	81.2	10.0	62	N.W.	11	...
22nd " "	1	91.4	81.9	9.5	78	N.E.	13	...
30th " "	1	91.6	83.1	8.5	72	S.	9	...
1st June	1	91.9	83.0	8.9	74	W.	8	...
24th " "	1	88.0	79.9	8.1	79	W.S.W.	13	...
28th " "	1	83.1	76.3	6.8	83	W.	9	0.44

			Deaths from Cholera recorded on each day.	TEMPERATURE OF AIR IN THE SHADE.			HUMIDITY.	WIND.		Rainfall in Inches. ^c
				Highest Maximum.	Lowest Minimum.	Range.	8 A.M.	Direction.	Rate per hour.	
Bombay City—continued.										
5th July 1898	...	2	86.7	80.5	6.2	83	W.	13	0.02	
7th " "	...	1	82.6	78.1	4.5	86	W.	21	1.64	
8th " "	...	1	86.6	80.9	5.7	82	S.W.	17	...	
9th " "	...	1	86.7	80.2	6.5	81	W.S.W.	13	0.07	
13th " "	...	1	84.9	76.8	8.1	95	W.N.W.	18	0.74	
14th " "	...	1	82.4	76.9	5.5	85	W.N.W.	17	2.21	
20th " "	...	1	84.5	79.2	5.3	88	W.	15	0.40	
21st " "	...	2	85.9	78.0	7.9	89	W.	19	0.20	
26th " "	...	1	81.9	76.0	5.9	91	E.S.E.	14	0.03	
30th " "	...	1	84.7	77.0	7.7	83	W.S.W.	20	0.14	
20th August 1898	...	1	86.4	77.0	9.4	86	W.	12	...	
22nd " "	...	1	85.4	78.0	7.4	82	W.	14	0.42	
31st " "	...	1	85.6	79.2	6.4	82	W.N.W.	15	0.05	
1st September 1898	...	2	85.8	78.8	7.0	81	W.	14	0.28	
5th " "	...	1	84.5	78.6	5.9	82	W.S.W.	7	0.02	
7th " "	...	1	83.0	77.1	5.9	90	N.N.E.	7	0.04	
17th " "	...	1	84.6	75.1	9.5	88	W.S.W.	14	0.30	
24th " "	...	1	86.2	74.6	11.6	83	N.E.	11	0.25	
25th " "	...	1	84.2	76.7	7.5	88	N.E.	9	...	
28th " "	...	1	87.4	76.5	10.9	91	E.N.E.	6	0.02	
5th October " "	...	1	88.6	77.0	11.6	91	S.E.	7	...	
15th " "	...	2	87.9	79.0	8.9	88	S.S.E.	5	...	
20th " "	...	1	89.7	77.2	12.5	65	E.N.E.	11	...	
31st " "	...	1	92.4	76.5	15.9	70	E.S.E.	7	...	
8th November " "	...	1	90.3	77.8	12.5	61	N.N.E.	12	...	
11th, " "	...	1	87.6	77.4	10.2	90	E.	6	...	
13th " "	...	1	87.7	78.0	9.7	87	E.N.E.	11	0.01	
1st December " "	...	1	88.8	75.5	13.3	68	E.	12	...	
16th " "	...	1	85.7	74.1	11.6	71	E.N.E.	11	...	
22nd " "	...	1	85.4	67.8	17.6	55	N.	13	...	
24th " "	...	1	88.2	72.4	15.8	68	E.	10	...	

1	2	3			4		5			6	
Month and Date.	Deaths from Cholera recorded on each day.	TEMPERATURE OF AIR IN THE SHADE.			MOISTURE OF AIR PER CENT. (100 BEING SATURATION).		WIND.			Rainfall in Inches.	
		Highest Maxi- mum.	Lowest Mini- mum.	Range.	10 H.	16 H.	Direction.		Velocity Miles per diem.		
							10 H.	16 H.			
Shola'pur.											
2nd June 1898	...	1	111.0	82.0	29.0	19	16	N.N.W.	N.W.	285.23	
3rd " "	...	1	109.0	79.0	30.0	30	15	N.W.	N.	424.31	
Poona.											
17th August 1898	...	1	82.4	68.0	14.4	75	66	W.	W.	293	0.02

		Deaths from Cholera recorded on each day	Maxi- mum,	Mini- mum,	Range.	Mean daily air moisture,	DIRECTION.		Miles per day.	Rainfall in Inches.
							Morning.	Evening.		
							10 H.	16 H.		
			Ka'rwa'r.							
13th May 1898...	...	...	91.1	82.6	8.5	64	W.S.W.	W.S.W.	152	...
	...	1	90.4	77.7	12.7	62	W.	N.W.	110	...

APPENDIX IV.

Military Works, Sanitary.

Station.	Actual Cost in 1898.	Description of Military Works, Sanitary, undertaken during the year 1898.
1	2	3
<i>Poona District.</i>		Rs.
Poona	4,402	Improving the drains in the Cantonment Bazár, Poona.
Do.	522	Providing urinals in the Poona Cantonment Bazár for the convenience of the public.
Ahmednagar ..	578	Cement pointing to all floors of Station Hospital and opening ventilators in wards 1, 2 and 3.
Do.	210	Providing 6 new latrines for Servants.
Do.	10	Opening the walls of the British Infantry latrines for further ventilation and also those of the Hospital.
Kirki	80	Constructing a drain to carry off waste water from Royal Artillery Lines Dairy.
Do.	20	Constructing sink and drains to No. 15, Staff Sergeant's Quarter, Royal Artillery Lines.
Do.	277	Constructing a concrete drain to carry away the waste water from the new stand pipe, Royal Artillery followers' Lines.
Do.	79	Constructing a stone drain 26' long 6" deep to Native Section Hospital.
Do.	126	Providing a latrine for 6" Proof Butt, Small Arms Ammunition Factory.
Do.	80	Providing latrine for the Native Establishment of the Military works.
Do.	10	Ventilating the Eyeward Bombay Sappers and Miners.
Sátára	542	Providing 4 ovens to the cook-houses of British Troops.
Do.	18	Providing wooden rails to the windows in the upper story of the Hill Fort Barracks.
Do.	19	Constructing a fire-place for burning excreta in the Station Hospital.
Do.	54	Providing ventilators to the Sergeants' Quarters in the Station Hospital.
Sirur ... ..	.....	None.
Purandhar ...	.....	None.
Málegaon...	214	Constructing a new night soil depôt.
<i>Bombay District.</i>		
Colába ... ..	.....	None.
Bombay ... ..	.....	The works mentioned in last year's report as incomplete have only been completed during the year 1898.
Baroda	60	Clearing out wells and encamping grounds at Baroda, Miyágám and Etola.
Do.	84	Clearing the drainage at Baroda.
Bhuj ... ..	.....	None.
Devláli	113	Repairing the Beer Godown of the Canteen at Deoláli Depôt.
Do.	134	Addition and alteration to the slab drain No. 46, on the South Main Road.
Do.	31	Constructing a gutter and down pipe over the south-west entrance to the Sergeants' Mess Building.
Thána ... ..	.....	None.
Khandála...	376	Constructing a new well for the use of the Sanitarium. (The work was commenced in January 1897 and completed in 1898 at a cost of Rs. 1,268.)
Do.	71	Raising the stone pavement in the openings under the seats of the Barracks and Hospital latrines.

APPENDIX IV—continued.

Station.	Actual Cost in 1898.	Description of Military Works, Sanitary, undertaken during the year 1898.
1	2	3
<i>Mhow District.</i>	Rs.	
Nasirabad ...	1,200	Improving the wash-houses of the British Infantry.
Do. ...	350	Improving the wash-houses of the Royal Artillery Lines.
Do. ...	139	Erecting Larymare boilers for use of British Troops.
Do. ...	346	Improving fixtures of the cook-houses of the British Infantry Lines and closing the masonry tanks and providing sinks (raised) in each cook-house with water taps.
Do. ...	3,000	Providing moveable latrines for Native Troops and Followers (in progress).
Do. ...	64	Providing a stone drain to East of Royal Artillery Stables.
Do. ...	100	Improving ventilation to bar and supper-room of the British Infantry Institute.
Mhow ...	1,495	Providing moveable iron latrines on the improved system for the syces of the British Cavalry.
Do. ...	16	Ventilating urinals in the Royal Artillery Lines.
Do. ...	20	Constructing a cinerator at the Station Hospital.
Do. ...	735	Providing Larymare boilers for the British Troops.
Do. ...	640	Constructing a drain on the north side of Mitchell Road near Native Infantry Lines.
Do. ...	6,863	Building a dairy for the Cantonment.
Do. ...	7,840	Building a bakery for the Cantonment.
Neemuch...	45	Carrying out certain petty sanitary improvements in the British Infantry and Royal Artillery Barracks.
Do. ...	103	Remodelling the fire-place of the cook-house of the Station Hospital.
Do. ...	70	Providing a 2-seated moveable iron latrine for Military Works Department employers, outside Fort.
Do. ...	36	Providing meat safe and chopping block in the cook-house of the Station Hospital.
Do. ...	100	Replacing the old masonry latrines in the Royal Artillery Lines by moveable iron ones.
Do. ...	380	Constructing special washing compartments as adjuncts to the urinaries for British Infantry and Royal Artillery Lines.
Do. ...	88	Remodelling the urinaries in the British Infantry Lines.
Do. ...	194	Erecting two Larymare boilers in the British Infantry and Royal Artillery Lines.
Do. ...	76	Making alterations to No. $\frac{1}{2}$ Lavatory in Royal Artillery Lines and providing iron water tank.
Do. ...	164	Improving Lavatories Nos. $\frac{4}{2}$ and $\frac{9}{2}$ in the British Infantry Lines and providing iron water tanks.
Do. ...	1,280	Altering the masonry tank at No. 26 well near the Station Hospital, and providing an iron water tank and a pump.
Do. ...	15	Constructing drains from the cook-houses in the British Infantry and Royal Artillery Lines.
Indore ...	165	Improving the drainage of the ground between the sepoys Barracks and school of the Native Infantry Lines.
Do. ...	74	Renewing the wooden frame work and masonry steining of the well attached to Native Infantry Hospital.
Do. ...	25	Providing stone-floor in the dead-house attached to the Native Infantry Hospital.
Do. ...	14	Constructing a new cinerator at the Station Hospital.
Do. ...	869	Providing pine ceiling in the married quarters of the European Infantry.

APPENDIX IV—*continued.*

Station.	Actual Cost in 1898.	Description of Military Works, Sanitary, undertaken during the year 1898.
1	2	3
Indore	196	Fixing one Larymare boiler for the use of the Royal Fusiliars.
Do.	807	Special repairs and renewals to some of the sepoy's Pendlals and Native Officers Quarters of the Native Infantry.
Do.	122	Remetalling the approaches and ground round the Station Hospital.
Do.	155	Remetalling some of the roads in the British Infantry Lines.
Do.	2,680	Dismantling and constructing Pental No. 15 in the Native Infantry Lines. (Total cost Rs. 4,471.)
Do.	397	Improving the drainage of the Native Infantry Lines.
Do.	286	Special repairs to the verandah pillars of the European Infantry Barrack.
Asergarh ... ..	.....	None.
<i>Deesa District.</i>		
Deesa	355	Improving horse-standings of stables Nos. 55, 56 and 57, Royal Artillery Lines.
Do.	86	Supplying 3 moveable latrines of two seats each for the use of followers attached to the British Infantry Lines.
Do.	33	Constructing a masonry dust-bin in the compound of Native Cavalry Hospital.
Do.	36	Constructing a masonry dust-bin in the compound of Native Infantry Hospital.
Ahmedabad	743	Filling the Lali tank in the Cantonment.
Do.	159	Making improvements in the Station Hospital by fixing wire matting to keep pigeons out of the ventilators.
Do.	19	Constructing an ash-pit in the compound of Native Infantry Hospital Camp.
Do.	150	Erecting five moveable latrines of two seats each on the Deesa Sadar Bazar pattern.
Do.	15	Fixing an upright pipe with canvas hose for filling carts to the stand-post in the Royal Artillery gunshed.
Do.	216	Laying on water to the Royal Artillery stables. (In progress).
Rajkote	69	Military wells have been cleaned out and maintained in good state of repairs.
Do.	126	Three moveable iron latrines were provided to the Cavalry Bazar.
Do.	24	Providing tile-flooring to the Native Infantry Hospital, and a stone drain to the Cavalry trough.
Mount Abu	10	Providing incinerator for the Station Hospital.
Do.	161	Converting two windows into doors and providing brass hooks in girls dressing room for hanging clothes, in Lawrence School.
Do.	32	Providing iron dust-bin for 20 family block.
Do.	49	Constructing a urinal for the Bar Room.
Erinpura (Mount Abu Division).	204	Purchase of a filth cart and pans.
Do.	83	Constructing urinaries in Bazar.
Do.	17	Digging channel to regulate the overflow of Bazar fluid.
Do.	29	Repairs to urinaries in Bazar.

APPENDIX IV—concluded.

Station.	Actual Cost in 1898.	Description of Military Works, Sanitary, undertaken during the year 1898.
1	2	3
<i>Nágpur District.</i>		
Kamptee and Sitabul-dee.	37	Erecting fire-places for burning excreta of typhoid patients at Station Hospital, Kamptee and at Sitabuldee.
Do. ...	2,188	Building Nos. 137, 138 and 139 British Infantry Lines, Kamptee, originally consisted of cook-houses and latrines under one roof, they have now been converted into two cook-houses and a new latrine for 12 families constructed.
Do. ...	5,379	Nos. 50 and 54 Staff Sergeants' Quarters at Takli are being re-roofed with Allahabad tiles, walls heightened.
Ráipur ...	198	Constructing 4 new culverts and repairing old ones.
Do. ...	18	Repairing drains and making some new road side drains.
Do. ...	260	Repairs of roads.
Do. ...	190	Constructing two three-seated latrines for males.
Do. ...	190	Constructing two three-seated latrines for women and children.
Sambalpur ...	386	Metalling and annual repairs to Cantonment road.
Do. ...	147	Special repairs to the lower outlet drains in Military Lines.
Do. ...	37	Repairing seats of Horbury's patent latrines.
<i>Sind District.</i>		
Karáchi ...	923	Putting in of ventilated wooden floor in No. 4 Somerset Lines in lieu of the former concrete to obviate the excessive unhealthiness of the quarters due to the damp subsoil.
Ghizri Sanitarium ...	.....	None.
<i>Aden District.</i>		
Aden-Steamer Point ...	.....	None.
Do. Isthmus Position.	.....	None.
Do. Crater do. ...	.....	None.

APPENDIX V.

APPENDIX V.

Statement showing the Entire Income in each Municipality and Allotment for Sanitary Purposes during the year 1897-98.

Municipalities.	Population as per Census of 1891.	Income.	Rate per cent. of sanitary allotment to estimated income.	Rate per cent. of sanitary expenditure to sanctioned.	Sanitary Allotment.		Conservancy.		Improvement of Town-ships.		Improvement of water-supply, including cleansing, repairing, &c.		Sanitary arrangements during Fairs and Festivals.		Construction and repairs of Markets and Slaughter-houses.		Other sanitary objects, including construction and repairs of Tanks, &c.		Brief notes on important Sanitary Works undertaken or completed during the year.
					Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.			
NORTHERN DIVISION.																			
Ahmedabad District.																			
1. Ahmedabad ...	143,664	Rs. 3,89,541	39.08	68.81	1,52,245	1,47,234	95,797	92,700	2,965	2,965	31,399	31,052	80	68	340	322	21,664	20,127	The experimental drainage scheme has been completed and steps have been taken to raise a further loan to extend the drainage to other parts of the city. The construction of a Jack-well and the third engine house at the water-works undertaken.
2. Dholka...	16,489	14,798	60.95	68.81	9,019	6,208	4,261	4,082	1,225	1,199	665	549	...	...	90	97	2,778	281	Improvement of the drainage round the town. Pits in the vicinity of the town have been filled up.
3. Virangam ...	23,010	35,720	24.66	100	8,807	8,807	7,879	7,879	...	...	74	74	...	...	...	...	854	854	
4. Parantij ...	8,764	7,657	25.81	70.50	1,976	1,393	1,260	1,135	600	201	116	57	...	...	...	...	...	...	
5. Modasa ...	7,031	6,219	21.27	80.95	1,323	1,071	648	634	475	336	200	101	...	...	...	...	...	...	
6. Dhandhuka ...	9,576	12,720	18.51	...	2,354	2,485	1,890	1,856	...	...	240	436	...	...	...	...	234	193	
7. Gogha ...	6,415	3,494	25.62	92.63	895	829	545	545	100	74	250	210	...	...	...	...	...	...	
8. Sanand ...	7,784	9,013	28.90	50.38	2,605	1,312	2,430	1,289	...	...	100	6	...	...	...	...	75	17	
9. Dholera ...	10,087	9,700	45.66	87.09	4,429	3,857	1,414	1,349	125	3	...	...	...	...	...	...	3,015	2,508	
10. Mandar ...	8,028	5,298	20.90	63.14	1,107	699	832	690	...	...	150	6	...	...	...	...	...	...	
11. Ranpur ...	5,898	6,166	24.09	85.45	1,485	1,269	447	270	250	215	768	764	...	...	...	...	20	20	
Total ...	246,686	5,00,326	37.22	94.05	1,86,245	1,75,164	1,17,393	1,12,429	5,740	4,993	33,962	33,255	80	68	430	419	28,640	24,000	
Kaira District.																			
12. Kaira ...	10,101	9,132	70.02	89.59	6,395	5,723	2,372	2,272	2,625	2,561	50	37	1,348	859	...	...	...	...	
13. Mehnadabad ...	7,842	5,890	39.99	97.10	1,825	1,772	797	772	608	599	420	401	...	...	...	...	...	...	
14. Nadiad ...	29,048	48,073	41.22	88.72	19,816	17,580	11,618	10,444	...	...	270	124	...	...	125	103	7,803	6,909	
15. Kapadvanj ...	14,805	23,823	20.41	81.43	4,863	3,960	2,966	2,391	1,725	1,472	172	97	...	...	...	...	...	...	
16. Dākor ...	9,487	10,893	29.43	61.92	3,206	1,985	1,654	1,196	800	666	627	52	...	...	...	...	125	71	
17. Borsad ...	12,160	8,307	24.61	87.87	2,044	1,796	1,889	1,657	...	...	95	79	...	...	...	...	60	60	
18. Anand ...	9,214	6,595	24.84	88.89	1,638	1,456	1,113	1,035	500	406	25	15	...	...	...	...	...	...	
19. Unreth ...	15,638	12,325	46.77	91.86	5,764	5,295	2,796	2,491	1,120	1,034	65	21	...	...	...	...	1,783	1,749	
20. Od ...	8,082	5,008	32.93	85.18	1,619	1,379	974	875	325	233	320	271	...	...	...	...	...	...	
21. Mahuda ...	9,436	7,299	21.93	99.38	1,601	1,591	593	625	138	104	870	862	...	...	...	...	...	...	
Total ...	125,813	1,37,345	35.51	87.25	48,771	42,543	26,772	23,758	7,841	7,075	2,914	1,959	1,348	859	125	103	9,771	8,789	

A new well built.

Panch Mahals District.

22. Godhra	...	14,691	15,925	23-77	85-90	3,786	3,252	3,486	2,970	...	2,023	150	132	...	...	...	150	150
23. Dohad	...	12,935	16,209	61-32	95-41	9,939	9,483	2,576	2,382	2,162	2,023	1,251	1,251	...	...	...	3,950	3,835
24. Kálol	...	4,096	4,161	17-23	63-84	719	459	454	335	100	23	130	66	...	...	...	35	35
Total	...	31,722	36,295	39-80	91-25	14,444	13,194	6,516	5,687	2,262	2,046	1,531	1,441	...	...	...	4,135	4,020

Broach District.

25. Broach...	40,168	1,06,975	43-38	79-90	46,724	36,910	32,742	29,899	...	...	6,300	2,133	...	...	...	1,621	5,582	3,257
26. Anklesvar ...	10,025	22,652	28-37	98-47	6,426	6,328	4,279	4,244	...	...	205	199	...	...	...	59	1,877	1,826
27. Jambusar ...	12,079	12,376	50-44	93-08	6,213	5,936	2,103	1,969	3,600	3,558	340	299	...	...	...	...	200	120
28. Hansot...	4,435	2,941	22-24	93-47	654	644	486	479	78	78	34	34	...	...	...	...	56	53
29. Amod ...	5,007	6,126	44-22	83-25	2,710	2,256	1,570	1,537	300	281	840	438	...	...	...	...	...	...

Total

Total ...	72,314	1,51,075	41-54	82-98	62,757	52,074	41,180	38,118	3,978	3,917	7,719	3,103	...	...	...	2,165	7,715	5,256
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Surat District.

30. Surat ...	108,893	6,16,002	66-63	...	4,10,458	5,07,088	40,738	29,297	23,050	17,770	2,85,899	2,32,219	...	...	...	3,845	56,926	2,25,642
31. Rander...	10,926	18,114	20-82	99-73	3,771	3,761	1,359	1,350	2,011	2,011	127	127	...	...	...	...	274	273
32. Balsar...	14,779	58,176	11-79	88-43	6,267	5,542	5,958	5,452	...	...	309	90	...	...	...	...	...	...
33. Mándvi ...	3,905	5,591	23-50	67-43	1,314	886	1,096	725	30	15	125	83	...	...	...	11	52	52

Total

Total ...	138,303	6,92,883	60-38	...	4,21,810	5,17,277	49,151	36,824	25,091	19,796	2,86,460	2,32,519	...	...	...	3,856	57,252	2,25,967
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Thana District.

34. Thana ...	16,839	34,369	32-67	75-52	11,293	8,430	8,441	7,207	...	...	2,048	898	...	...	...	740	...	...
35. Kurla ...	11,406	30,502	51-71	99-43	15,800	15,719	5,242	5,292	...	...	7,300	7,289	...	...	...	158	3,100	3,056
36. Bádura ...	17,465	71,409	33-79	83-06	24,131	24,042	23,235	19,325	...	...	350	164	...	...	...	546	...	...
37. Bassein...	11,182	9,455	59-14	90-24	5,592	5,381	1,342	1,292	...	...	...	...	...	...	...	20	4,230	4,069
38. Mahim-Kalva...	6,923	5,700	16-37	97-86	933	913	90	90	828	808	15	15	...	...	...	...	...	...
39. Bhivndi ...	14,213	17,896	35-06	97-49	6,275	6,117	5,581	5,581	...	...	456	298	...	...	...	100	...	...
40. Kalyán...	11,085	17,088	70-72	89-90	12,085	10,865	5,385	4,792	250	200	550	239	...	...	...	...	5,800	5,627

Total

Total ...	89,713	1,86,419	40-79	88-79	76,045	67,517	49,316	43,509	1,078	1,008	10,719	8,883	238	238	...	1,564	13,130	12,752
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CENTRAL DIVISION.

Ahmednagar District.

41. Ahmednagar ...	36,033	1,72,468	78-07	62-81	1,34,640	84,573	23,440	23,423	300	280	1,09,325	59,809	...	...	...	1,275	...	...
42. Bhingar ...	5,490	5,500	52-42	...	2,883	3,450	2,783	3,436	...	...	100	14	...	...	...	...	...	...
43. Sangamner ...	10,633	15,826	18-80	...	2,975	3,049	2,865	2,989	...	...	110	60	...	...	...	...	...	...
44. Vámbord ...	5,159	4,719	57-22	82-70	2,700	2,233	747	600	553	313	1,400	1,320	...	...	...	...	...	...
45. Sharda ...	6,059	2,300	58-70	99-48	1,350	1,344	1,250	1,246	...	...	100	98	...	...	...	...	...	...

Total

Total ...	63,374	2,00,813	71-98	65-55	1,44,548	94,049	31,085	31,694	853	593	1,11,335	61,301	...	...	...	1,275	...	...
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APPENDIX V—continued.

Municipalities.	Population as per Census of 1891.	Income.	Rate per cent. of sanitary allotment to estimated income.	Rate per cent. of sanitary expenditure to amount sanctioned.	Sanitary Allotment.		Conservancy.		Improvement of Town-site.		Improvement of water-supply, including cleansing, repairing, &c.		Sanitary arrangements during Fairs and Festivals.		Construction and repairs of Markets and Slaughter-houses.		Other sanitary objects, including construction and repairs of tanks, &c.		Brief notes on important sanitary works undertaken or completed during the year.
					Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	
Khandesh District.																			
46. Amalner	7,958	7,054	17.37	93.14	1,225	1,141	700	667	250	245	75	62	...	...	...	...	200	167	A new road with masonry gutters length 750 running feet has been completed during the year.
47. Parola	14,539	8,766	23.16	96.26	2,030	1,954	1,200	1,138	250	246	500	491	...	...	...	...	80	79	
48. Erandol	12,557	9,202	39.67	96.90	3,650	3,537	2,200	2,165	500	475	100	92	...	...	550	524	300	281	
49. Dharangaon	14,357	9,410	30.02	95.15	2,825	2,688	2,300	2,245	100	58	250	215	...	...	175	170	...	...	
50. Bhadgaon	7,287	3,460	30.92	55.42	1,070	593	1,070	593	...	...	...	...	...	...	...	...	...	...	
51. Máheji (temporary)	398	1,048	11.45	91.66	120	110	120	110	...	...	...	...	...	...	...	...	...	...	A new road with masonry gutters length 750 running feet has been completed during the year.
52. Chopda	15,535	10,097	47.69	33.32	4,850	1,616	1,950	1,401	2,875	1,986	300	14	...	...	1,200	182	1,400	19	
53. Shirpur	7,864	8,895	77.16	54.29	6,863	3,726	2,012	1,536	2,875	1,986	675	1	...	...	1,002	5	269	198	
54. Sindkheda	4,293	3,734	14.81	93.67	553	518	480	426	...	...	50	69	...	...	...	...	23	23	Stone gutters for removing sullage water were constructed during the year.
55. Betavadi	3,464	2,951	38.43	50.62	1,131	574	564	538	275	20	95	4	...	...	200	12	...	...	
56. Návda...	7,142	11,227	33.86	50.99	3,801	1,938	2,011	1,323	825	281	15	10	...	...	50	...	900	324	
57. Yaval	10,801	9,048	11.20	...	1,013	1,264	101	1,263	...	...	...	...	...	...	912	1	...	...	
58. Bhusaval	11,445	18,975	45.98	82.21	8,725	7,173	4,900	3,537	800	780	...	...	...	...	575	553	2,450	2,303	
59. Jalgaon	14,538	33,737	75.96	88.28	25,628	22,624	22,682	20,627	...	...	1,854	1,560	...	...	224	135	868	302	300 running feet of new U shaped gutters were constructed.
60. Dhalia	21,888	79,768	35.94	92.27	28,672	26,455	11,111	11,055	4,501	3,731	10,500	9,275	...	...	1,060	907	1,500	1,467	
61. Songir	4,616	2,675	39.27	91.24	1,050	953	600	555	300	293	150	111	...	...	...	...	...	...	
62. Taloda	6,292	4,826	25.90	97.52	1,250	1,219	1,250	1,219	...	...	...	...	...	...	...	...	533	504	
63. Shabada	5,441	4,106	57.46	88.50	2,356	2,085	1,698	1,498	100	58	...	...	...	...	25	...	...	...	
64. Prakash	3,776	1,698	35.10	75.17	596	448	591	444	...	...	5	4	...	...	...	...	...	...	300 running feet of new U shaped gutters were constructed.
65. Nandurbár	7,666	11,702	70.07	69.69	8,900	6,202	2,200	1,907	1,500	1,428	2,500	1,512	...	...	...	...	2,700	1,355	
66. Falpur	9,482	5,919	25.94	63.12	1,543	974	1,068	827	300	...	125	100	...	...	...	...	50	47	
67. Raver...	6,788	975	18.56	52.49	181	95	74	72	25	7	50	10	...	...	26	...	6	6	
Total	198,727	2,40,297	43.31	81.36	1,08,035	87,893	60,882	55,146	12,601	9,628	17,244	13,530	...	...	5,999	2,514	11,279	7,075	
Nasik District.																			
68. Máleguon	15,503	20,768	36.78	96.49	7,619	7,142	6,164	6,386	...	...	438	437	...	...	737	319	...	...	A new road with masonry gutters length 750 running feet has been completed during the year.
69. Yeola	18,861	23,938	61.31	79.30	14,676	11,638	10,526	8,538	...	...	3,600	2,495	...	...	550	545	...	...	
70. Nasik	24,400	82,603	67.26	93.72	55,560	52,070	20,644	17,247	100	67	600	587	...	...	100	54	34,116	34,115	
71. Sinar	8,319	9,366	13.26	94.77	1,242	1,177	1,148	1,122	...	...	94	58	...	...	...	...	...	...	
72. Igatpuri	6,814	8,781	64.91	97.21	5,700	5,541	2,500	2,531	2,500	2,395	600	554	...	...	100	61	...	...	
73. Trimbak	4,084	4,772	...	62.29	5,165	3,404	2,265	2,108	...	...	3,200	1,296	...	...	...	...	...	...	A new road with masonry gutters length 750 running feet has been completed during the year.
Total	77,981	1,50,228	60.09	89.69	90,282	80,972	43,517	37,992	2,600	2,462	8,532	5,424	...	...	1,487	979	34,116	34,115	

APPENDIX V—continued.

Municipalities.	Population as per Census of 1891.	Income.	Rate per cent. of sanitary allotment to estimated income.	Rate per cent. of sanitary expenditure to amount sanctioned.	Sanitary Allotment.		Conservancy.		Improvement of Town-sites.		Improvement of water-supply, including cleansing, repairing, &c.		Sanitary arrangements during Fairs and Festivals.		Construction and repairs of Markets and Slaughter-houses.		Other sanitary objects, including construction and repairs of tanks, &c.		Brief notes on important sanitary works undertaken or completed during the year.
					Rs.	Expenditure.	Rs.	Expenditure.	Rs.	Expenditure.	Rs.	Expenditure.	Rs.	Expenditure.	Rs.	Expenditure.	Rs.	Expenditure.	
Dhárwad District.																			
109. Dhárwar	32,672	55,893	26.89	97.90	15,030	14,714	12,165	12,165	330	328	626	626	...	...	843	582	1,066	1,013	
110. Hubli	50,782	1,03,295	62.87	86.45	64,943	56,143	15,901	14,476	1,000	222	10,442	9,029	...	...	2,600	554	35,000	31,862	
111. Gadag-Betgeri	23,208	33,216	38.12	97.44	12,662	12,338	2,352	2,255	...	...	230	229	...	...	...	...	10,080	9,854	
112. Favalgund	9,040	6,392	27.47	87.36	1,756	1,499	1,216	1,069	200	117	340	313	...	...	...	...	...	...	
113. Yammur	984	260	...	87.55	715	626	60	60	300	280	355	286	...	...	...	...	...	...	
114. Nargund	9,449	5,565	20.14	68.87	1,121	772	661	570	...	...	100	124	...	...	...	...	360	78	
115. Ranebennur	12,559	7,253	32.63	91.13	2,367	2,157	1,171	1,135	800	631	396	391	...	...	...	...	...	...	
116. Gaddaguddapur	768	1,250	61.60	57.79	770	445	60	42	300	299	400	98	...	...	...	...	...	...	
117. Byadgi	4,460	12,617	53.04	89.11	6,692	5,963	1,424	938	3,274	3,055	1,994	1,960	...	...	...	...	...	...	
118. Haveri	5,652	5,798	31.01	99.22	1,798	1,784	998	1,001	596	598	154	149	...	...	...	...	50	36	
Total	149,574	231,539	46.58	89.60	1,07,554	96,441	36,008	33,711	6,800	5,540	15,037	13,205	10	6	3,443	1,136	46,556	42,843	
Bijapur District.																			
119. Bijapur	16,717	24,240	51.84	60.93	12,566	7,657	9,523	6,451	...	...	2,537	787	...	...	54	15	452	404	
120. Bigalkot	17,897	27,704	33.40	80.84	9,263	7,480	6,805	5,233	1,188	1,181	125	23	...	...	135	90	1,000	948	
121. Ilkal	11,201	8,418	24.86	85.09	2,093	1,781	2,019	1,709	50	50	400	...	...	...	24	22	...	...	
122. Gulbaggund	15,354	13,119	25.23	65.68	3,310	2,174	2,910	2,136	...	...	...	38	...	...	...	...	...	...	
Total	61,169	73,481	37.05	69.88	27,222	19,092	21,257	15,534	1,238	1,231	3,062	848	...	...	213	127	1,452	1,352	
Kánara District.																			
123. Karwar	14,293	12,730	25.06	83.70	3,190	2,670	2,690	2,287	...	...	150	151	...	...	100	64	250	168	
124. Kunta	10,640	17,403	13.04	85.30	2,269	1,816	1,549	1,437	545	255	40	36	...	...	135	88	...	...	
125. Sirsi...	6,644	8,975	39.22	90.91	3,520	3,200	2,225	2,770	...	...	850	378	46	...	50	45	350	7	
126. Haliyal	6,180	5,883	48.65	62.61	2,862	1,792	1,144	1,082	36	...	1,132	129	...	...	100	99	450	482	
127. Gokarn	4,342	1,734	45.67	58.33	792	462	236	214	155	89	291	89	...	...	...	...	...	...	
128. Ulvi (temporary)	11,284	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
129. Honavar	6,207	5,798	11.30	89.19	656	594	606	564	50	30	10	...	...	...	...	...	...	...	
130. Bhatkal	5,940	5,086	13.96	94.65	710	672	710	672	...	...	...	...	...	...	...	...	...	...	
Total	65,530	57,709	24.28	79.99	14,009	11,206	9,160	9,026	786	374	2,473	783	155	70	385	296	1,050	657	
Ratnagiri District.																			
131. Venguela	10,134	12,018	57.96	95.31	6,245	5,952	1,568	1,567	80	80	240	235	...	...	125	116	4,232	3,954	
132. Rajapur	7,446	7,632	16.05	92.90	1,225	1,138	325	304	...	...	900	834	...	...	...	...	...	...	
133. Ratnagiri	14,306	11,832	10.32	...	1,221	1,264	983	1,264	...	...	...	...	...	...	238	6	...	...	
134. Chiplun	11,378	12,575	77.22	61.47	8,940	5,495	3,114	1,900	...	...	2,163	766	...	...	...	...	3,663	2,829	
135. Dápoli	2,635	4,060	53.50	93.32	2,172	2,627	453	444	...	...	75	1	...	...	...	...	1,644	1,582	
Total	45,949	43,117	41.16	80.20	19,803	15,882	6,443	5,479	80	80	3,378	1,866	...	...	363	122	9,539	8,365	

APPENDIX V—continued.

Municipalities.	Population as per Census of 1891.	Income.	Rate per cent. of sanitary allotment of estimated income.	Rate per cent. of sanitary expenditure to sanctioned amount.	Sanitary allotment.		Conservancy.		Improvement of Town-sites.		Improvement of water-supply, including cleansing, repairing, &c.		Sanitary arrangements during Fairs and Festivals.		Construction and repairs of Markets and Slaughter-houses.		Other sanitary objects, including construction and repairs of tanks, &c.		Brief notes on important sanitary works undertaken or completed during the year.
					Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	
<i>Shikarpur District.</i>																			
158. Shikarpur ...	41,979	1,13,271	47·67	81·49	53,994	44,002	32,018	31,019	9,450	5,868	5,706	2,860	...	...	6,320	4,123	500	132	
159. Sukkur ...	22,274	2,94,333	28·53	98·51	69,270	68,240	36,800	35,882	...	1,686	30,000	28,908	...	...	2,470	1,764	...	...	The extension of the gallery at the head water works undertaken in the previous year to supplement the deficiency of supply in the supply well was completed, and two large drains were constructed in old Sukkur.
160. Garhi Yasin ...	5,960	13,544	19·61	...	3,510	3,639	2,652	2,914	...	...	688	582	...	...	70	59	100	84	
161. Rohri ...	8,786	34,700	16·54	...	5,740	5,798	5,410	5,779	...	...	300	...	...	...	30	19	...	...	
162. Ghotki ...	3,238	8,557	25·86	93·64	2,170	2,032	1,500	1,421	50	40	300	261	...	...	320	310	...	...	
163. Larkhāna ...	11,805	52,284	27·17	...	14,207	15,219	9,099	7,488	2,700	1,813	608	634	...	...	1,300	1,051	500	4,233	The paving of the streets is progressing. The market and the slaughter-house were paved.
164. Kambar ...	5,341	13,194	35·79	66·37	4,722	3,134	2,847	2,315	230	...	1,200	210	...	...	345	174	100	435	
165. Rato-dero ...	3,554	7,980	34·11	...	2,722	2,774	2,072	1,854	300	222	100	67	...	...	200	185	50	446	
Total ...	109,987	5,37,863	29·12	92·65	1,56,335	1,44,838	92,398	88,672	12,730	9,629	38,902	33,522	...	...	11,055	7,685	1,250	5,330	
<i>Upper Sind Frontier District.</i>																			
166. Jacobabad ...	8,294	61,759	27·93	89·34	17,247	15,408	10,205	9,752	...	...	2,112	1,067	...	...	3,610	3,307	1,290	1,282	During the year special clearance to the large tank near the Clock Tower which had not been cleared for years was carried out. A row of 14 shops was constructed in place of the market of 16 shops destroyed by fire. The road from the Durair house to the Civil Hospital was laid with concrete.
Grand Total ...	2,231,254	53,26,199	49·23	92·56	26,22,028	24,26,846	11,38,896	10,50,768	1,51,386	1,21,933	6,92,790	5,18,010	41,708	31,777	62,253	41,707	5,34,995	6,62,651	
Malgaon Cantonment ...	3,779	1,287	...	86·32	1,572	1,357	1,572	1,357	...	...	...	...	...	...	...	...	...	...	...
Devkath Camp ...	2,294	1,198	...	99·39	3,231	3,261	2,564	2,560	100	84	...	...	...	...	617	617	...	...	...

APPENDIX V.—*continued.*

APPENDIX V—continued.

Statement showing the Entire Income from all Sources and Allotment for Sanitation during the year 1897-98 in the District and Taluka Local Boards of the Bombay Presidency.

1897-98.																												
1	2	3	4	5	6	7	8	9	Sanitary Allotment.		Conservancy.		Improvement of Village-sites.		Improvement of Water-supply, including cleansing, repairing and construction of Tanks and Wells.		Sanitary arrangements at Fairs and Festivals.		Construction and repair of Markets and Slaughtering-houses.		Other sanitary objects, including construction and repair of Latrines, Dust-bins, Drains, &c.		24	Brief notes on important sanitary works undertaken or completed during the year.				
									Total of Columns 12, 14, 16, 18, 20, 22, and 23.	Total of Columns 13, 15, 17, 19, 21 and 23.	Allotment.	Expenditure.	Rs.	Rs.	Allotment.	Expenditure.	Rs.	Rs.	Allotment.	Expenditure.	Rs.	Rs.			Allotment.	Expenditure.	Rs.	Rs.
District Local Board, Ahmedabad.	920,928	3,821	1,183	...	...	Rs. 71,612	254	...	Rs. 1,820	16,066	8,479	...	...	Rs. 1,820	16,066	8,479	...	...	Rs. ...	...	...	...	...	...				
Taluka Local Board, Daskroi	295,258	348	176	...	...	21,192	75-81	52-78	16,066	18,657	11,255	...	...	...	18,657	11,255	...	...	...	...	...	...	...	...				
Do. do. Dholka	118,236	635	140	...	...	17,384	...	60-33	8,002	8,002	5,770	...	...	...	8,002	5,770	...	...	...	...	...	...	...	...				
Do. do. Dhandhuka	124,926	1,098	167	...	...	11,661	68-62	72-17	11,803	7,097	7,097	...	...	...	11,803	7,097	...	...	...	...	...	...	...	...				
Do. do. Virangam...	145,263	677	193	...	...	14,714	80-22	60-13	11,803	4,000	2,899	...	...	...	4,000	2,899	...	...	...	...	...	...	...	...				
Do. do. Parantij	82,922	287	817	...	...	4,048	98-81	72-47	2,535	2,535	1,805	...	...	...	2,535	1,805	...	...	...	...	...	...	...	...				
Do. do. Modasa	33,213	162	124	...	...	1,530	...	71-20	10,707	5,121	4,909	...	...	...	10,707	5,121	...	...	...	...	...	...	...	...				
Do. do. Sanand	88,089	360	66	...	...	10,361	...	47-83	2,822	2,822	4,909	...	...	...	2,822	4,909	...	...	...	...	...	...	...	...				
Do. do. Gogo	33,021	224	66	...	...	1,451	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Total	920,928	3,821	1,183*	...	...	1,53,986	49 30	62-36	75,912	47,335	47,335	...	...	...	75,912	47,535	...	...	...	...	...	...	...	...				
District Local Board, Kaira	871,529	1,596	573	...	...	1,93,472	2-25	79-53	4,347	3,447	3,447	...	...	...	2,247	1,792	...	...	...	...	...	...	...	...				
Taluka Local Board, Mehmadabad	92,362	171	58	...	...	6,953	...	61-23	7,602	4,655	4,655	...	...	...	7,602	4,655	...	...	...	...	...	...	...	...				
Do. do. Mitara	79,080	216	80	...	...	10,657	...	44-62	8,730	3,895	3,895	...	...	...	8,730	3,895	...	...	...	...	...	...	...	...				
Do. do. Thakra	95,605	257	96	...	...	8,309	...	45-63	14,051	6,411	6,411	...	...	...	11,687	6,371	...	...	...	...	...	...	...	...				
Do. do. Kapadvanj	101,522	279	87	...	...	4,196	...	62 68	6,169	3,867	3,867	...	...	...	6,169	3,867	...	...	...	...	...	...	...	...				
Do. do. Nadiad	171,080	224	91	...	...	11,597	...	57-08	8,208	4,685	4,685	...	...	...	8,108	4,683	...	...	...	...	...	...	...	...				
Do. do. Borad	162,122	205	89	...	...	10,936	...	52-31	16,391	8,574	8,574	...	...	...	16,341	8,557	...	...	...	...	...	...	...	...				
Do. do. Amand	169,758	214	72	...	...	12,454	...	39-53	13,931	5,507	5,507	...	...	...	13,906	5,507	...	...	...	...	...	...	...	...				
Total	871,529	1,596	573	...	...	2,58,604	30-71	51-67	79,429	41,041	41,041	...	...	...	74,290	39,327	...	...	...	...	...	...	...	...				
District Local Board, Panch Mahals	313,381	1,613	692	...	...	25,714	23-36	90-14	6,007	5,415	5,415	...	...	...	6,007	5,415	...	...	...	...	...	...	...	...				
Taluka Local Board, Gadhwa	107,531	508	238	...	...	2,437	...	85-11	2,921	2,486	2,486	...	...	...	2,921	2,486	...	...	...	...	...	...	...	...				
Do. do. Adol	85,861	415	234	...	...	2,217	...	73-90	2,602	1,923	1,923	...	...	...	2,451	1,773	...	...	...	...	...	...	...	...				
Do. do. Dolad	117,999	600	220	...	...	2,880	...	62-35	5,278	3,291	3,291	...	...	...	5,028	3,081	...	...	...	...	...	...	...	...				
Total	313,381	1,613	692	...	...	83,298	50-57	78-03	16,808	13,115	13,115	...	...	...	16,407	12,755	...	...	...	...	...	...	...	...				
* Includes 298 suburbs.																												
The excess allotment over the income had to be met from the balances of the respective Boards.																												

1897-98.																												
District Local Boards.	1	2	3	4	5	6	7	8	9	Sanitary Allotment.												23	24					
										Number of Villages conserved (Village Sanitation Act).		Total of Columns 12, 14, 16, 18, 20 and 22.	Total of Columns 13, 15, 17, 19, 21 and 23.	Conservancy.		Improvement of Village-sites.		Improvement of Water-supply, including cleansing, repairing and construction of Tanks and Wells.		Sanitary arrangements at Fairs and Festivals.				Construction and repair of Markets and Slaughter-houses.		Other sanitary objects, including construction and repair of Latrines, Dust-bins, Drains, &c.		Brief notes on important sanitary works undertaken or completed during the year.
										Number of Unions.	Number of other Villages.			Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.			Allotment.	Expenditure.	Allotment.	Expenditure.	
District Local Board, Khandesh.		1,430,319	10,454	3,335	...	...	Rs. 3,53,710	1.20	69	...	Rs. 40	...	Rs. 4,240	...	Rs. 40	...	Rs. 4,240	...	Rs. 40	...	Rs. 4,240	...	Rs. 40	...				
Taluka Local Board, Dhulia		98,128	759	189	...	...	6,997	26.95	84.69	...	1,592	...	1,882	...	1,592	...	1,882	...	1,592	...	1,882	...	1,592	...				
Do. do.		109,841	528	278	...	...	6,661	6.73	100	...	448	...	448	...	448	...	448	...	448	...	448	...	448	...				
Do. do.		105,806	400	229	...	...	4,835	24.14	91.52	...	1,068	...	1,167	...	1,068	...	1,167	...	1,068	...	1,167	...	1,068	...				
Do. do.		115,262	541	228	...	...	9,005	15.42	95.03	...	1,320	...	1,389	...	1,320	...	1,389	...	1,320	...	1,389	...	1,320	...				
Do. do.		74,869	508	141	...	...	6,520	36.76	23.15	...	555	...	2,397	...	555	...	2,397	...	555	...	2,397	...	555	...				
Do. do.		59,192	1,339	166	...	...	6,450	80.29	90.56	...	3,690	...	5,179	...	4,606	...	5,079	...	4,606	...	5,079	...	4,606	...				
Do. do.		105,862	392	307	...	...	2,830	62.75	87.05	...	1,536	...	1,776	...	1,536	...	1,776	...	1,536	...	1,776	...	1,536	...				
Do. do.		82,910	1,777	301	...	...	633	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Do. do.		64,733	479	194	...	...	3,801	27.28	94.12	...	976	...	1,037	...	976	...	1,037	...	976	...	1,037	...	976	...				
Do. do.		73,379	506	168	...	...	5,593	56.91	97.49	...	3,103	...	3,183	...	3,103	...	3,183	...	3,103	...	3,183	...	3,103	...				
Do. do.		56,012	651	163	...	...	3,777	42.44	71.24	...	1,142	...	1,603	...	1,142	...	1,603	...	1,142	...	1,603	...	1,142	...				
Do. do.		72,819	368	133	...	...	2,048	12.21	100	...	250	...	250	...	250	...	250	...	250	...	250	...	250	...				
Do. do.		156,769	570	286	...	...	7,109	11.61	27.27	...	225	...	825	...	225	...	825	...	225	...	825	...	225	...				
Do. do.		113,538	730	244	...	...	10,643	42.40	76.08	...	3,401	...	4,470	...	3,401	...	4,470	...	3,401	...	4,470	...	3,401	...				
Do. do.		83,969	319	111	...	...	5,922	27.44	85.05	...	1,382	...	1,625	...	985	...	1,225	...	985	...	1,225	...	985	...				
Do. do.		87,230	527	197	...	...	7,174	6.27	100	...	450	...	450	...	450	...	450	...	450	...	450	...	450	...				
Total		1,400,319	10,454	3,335	...	5	4,43,678	7.20	69.48	...	22,178	...	31,921	...	21,697	...	31,421	...	21,697	...	31,421	...	21,697	...				
District Local Board, Nasik		841,087	5,935	1,694	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Taluka Local Board, Nasik		101,135	464	136	...	3	2,810	19.21	95.4	...	525	...	550	...	525	...	550	...	525	...	550	...	525	...				
Do. do.		73,137	519	103	...	9	2,900	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...					
Do. do.		69,072	373	130	...	1	3,050	20.00	86.97	...	525	...	60	...	525	...	610	...	525	...	610	...	525	...				
Do. do.		82,624	529	128	...	6	2,180	87.11	95.47	...	1,814	...	1,900	...	1,814	...	1,900	...	1,759	...	1,840	...	1,759	...				
Do. do.		92,363	411	121	...	8	3,770	43.77	94.71	...	1,564	...	1,650	...	1,564	...	1,650	...	1,452	...	1,530	...	1,452	...				
Do. do.		51,476	385	111	...	3	2,550	27.44	99.00	...	693	...	700	...	693	...	700	...	693	...	700	...	693	...				
Do. do.		65,806	402	120	...	4	2,700	100	99.71	...	2,632	...	2,700	...	2,361	...	2,370	...	2,361	...	2,370	...	2,361	...				
Do. do.		86,228	775	154	...	...	4,385	70.70	98.23	...	3,015	...	3,100	...	3,015	...	3,100	...	3,045	...	3,100	...	3,045	...				
Do. do.		33,533	437	92	...	1	2,800	82.32	99.9	...	2,304	...	2,305	...	2,304	...	2,305	...	2,304	...	2,305	...	2,304	...				
Do. do.		65,647	619	163	...	...	3,100	40.32	96.09	...	1,250	...	1,250	...	1,250	...	1,250	...	1,201	...	1,250	...	1,201	...				
Do. do.		58,691	563	190	...	1	2,730	46.60	97.85	...	1,272	...	1,300	...	1,272	...	1,300	...	1,272	...	1,300	...	1,272	...				
Do. do.		61,052	458	246	...	...	12,875	34.95	93.87	...	4,221	...	4,500	...	4,221	...	4,500	...	4,221	...	4,500	...	4,221	...				
Total		841,087	5,935	1,694	...	36	45,910	44.80	96.57	...	19,859	...	20,565	...	19,364	...	20,065	...	19,364	...	20,065	...	19,364	...				

District Local Board, Poona														* Represent the grants to Village Sanitary Committees in the District. No works of importance were undertaken or completed during the year.	
Taluka Local Board, Junnar	1,061,449	5,349	1,204	...	76,091	...	...	...	...	...	...	...	...	...	...
Do. do. Indrapur	115,726	591	163	...	6,210	20-27	90-78	1,259	1,143	...	...	...	...	1,259	1,143
Do. do. Kherd	70,916	567	86	...	3,089	36-71	56-61	1,134	642	...	...	...	...	884	456
Do. do. Sirur	162,389	876	244	...	2,654	43-52	93-40	1,605	1,499	...	...	...	...	1,405	1,399
Do. do. Purandhar	86,202	601	79	...	2,348	11-58	99-63	272	271	...	...	...	...	272	271
Do. do. Bhimthadi	83,976	470	92	...	4,756	41-00	79-28	1,950	1,546	...	...	...	...	1,650	1,218
Do. do. Haveli	140,203	1,035	130	...	5,374	27-56	85-89	1,481	1,272	...	...	...	...	1,481	1,272
Do. do. Maval	331,490	823	242	...	7,121	49-12	64-14	3,498	2,254	...	...	...	...	3,423	2,254
Do. do. Total	66,481	386	168	...	4,477	61-58	98-15	2,757	2,706	...	...	...	...	2,757	2,706
District Local Board, Satara	1,061,449	5,349	1,204	...	1,13,123	12-34	81-21	13,956	11,333	...	...	...	...	13,131	10,749
Taluka Local Board, Karad	1,225,511	4,988	1,345	...	1,07,556	9-67	76-26	10,401	7,932	...	...	...	...	9,734	7,965
Do. do. Valva	180,868	395	99	...	7,370	49-16	38-09	3,623	1,199	...	...	...	...	3,623	1,199
Do. do. Satara	19,252	543	138	...	6,671	26-99	14-07	1,734	244	...	...	...	...	1,734	244
Do. do. Wai	133,078	336	152	...	5,137	15-36	9-00	789	71	...	...	...	...	789	71
Do. do. Javli	109,466	392	126	...	5,070	40-55	80-89	2,056	1,663	...	...	...	...	2,056	1,663
Do. do. Khanapur	59,375	419	252	...	2,580	44-73	42-42	1,156	490	...	...	...	...	1,156	490
Do. do. Koregaon	95,930	531	90	...	4,030	40-99	38-63	1,652	634	...	...	...	...	1,652	634
Do. do. Man...	92,249	319	73	...	5,420	28-00	92-11	152	140	...	...	...	...	152	140
Do. do. Patan	62,857	649	77	...	3,190	34-64	16-83	1,105	186	...	...	...	...	1,105	186
Do. do. Khatav	131,034	536	205	...	3,320	11-53	67-19	384	258	...	...	...	...	384	258
Do. do. Tasgaon	93,217	497	86	...	3,967	78-62	55-05	3,419	1,717	...	...	...	...	3,419	1,717
Do. do. Total	93,185	341	48	...	3,630	73-74	63-54	2,699	1,715	...	...	...	...	2,699	1,715
District Local Board, Sholapur	1,225,511	4,988	1,345	...	1,57,981	18-27	56-30	23,869	16,254	...	...	...	...	23,202	15,587
Taluka Local Board, Sholapur	750,255	4,542	717	...	58,254	14-36	61-37	8,371	5,137	...	...	...	...	7,112	4,045
Do. do. Birs	780,222	848	152	...	5,239	...	26-39	6,165	1,627	...	...	...	...	5,849	1,327
Do. do. Madha	140,305	597	123	...	2,839	...	62-65	3,261	2,043	...	...	...	...	3,186	1,968
Do. do. Karmala	92,658	619	89	...	6,781	13-14	41-19	891	367	...	...	...	...	791	267
Do. do. Pandharpur	93,352	772	123	...	3,334	38-53	50-63	1,118	586	...	...	...	...	988	475
Do. do. Sangola	91,260	478	86	...	2,485	54-29	29-95	1,349	404	...	...	...	...	1,114	200
Do. do. Malsiras	78,420	654	75	...	1,554	67-57	44-19	1,050	464	...	...	...	...	845	314
Do. do. Total	74,038	574	69	...	1,908	47-90	69-37	914	634	...	...	...	...	866	589
District Local Board, Belgum	750,255	4,542	717	...	82,424	28-05	48-63	23,119	11,242	...	...	...	...	20,751	9,185
Taluka Local Board, Belgum	1,011,453	4,656	1,133	...	97,938	12-62	95-88	12,355	11,845	...	...	...	...	12,355	11,845
Do. do. Chikodi	145,383	663	203	...	2,400	14-83	64-61	356	230	...	...	...	...	356	230
Do. do. Athni	295,303	840	215	...	4,938	15-80	100-...	780	780	...	...	...	...	47	47
Do. do. Gokak	123,437	786	82	...	3,353	36-93	93-87	1,340	1,164	...	...	...	...	825	749
Do. do. Paragad	118,540	670	19	...	1,749	11-44	100-...	200	200	...	...	...	...	...	...
Do. do. Sampgaon	110,582	640	135	...	1,982	51-11	67-33	1,013	62	...	...	...	...	477	452
Do. do. Khanapur	132,631	424	141	...	4,428	32-57	83-41	1,442	1,347	...	...	...	...	1,442	1,347
Do. do. Total	85,577	633	240	...	2,686	5-21	99-29	140	139	...	...	...	...	73	72
District Local Board, Belgum	1,011,453	4,656	1,133	...	1,19,479	14-67	93-50	17,526	16,387	...	...	...	...	15,575	14,742
Do. do. Total	1,011,453	4,656	1,133	...	1,19,479	14-67	93-50	17,526	16,387	...	...	...	...	15,575	14,742

District Local Board.		Population as per Census of 1901.	Area in square miles.	Number of Villages in the Circle.	Number of Villages conserved (Village Sanitation Act).		Entire Income of 1897-98.	Rate per cent. of allotment to Estimated Income.	Rate per cent. of sanitary expenditure to allotment.	1897-98.						Brief notes on important sanitary works undertaken or completed during the year.							
					Number of Unions.	Number of other Villages.				Sanitary Allotment.		Conservancy.		Improvement of Village-sites.			Improvement of Water-supply, including cleansing, repairing and construction of Tanks and Wells.	Sanitary arrangements at Fairs and Festivals.		Construction and repair of Markets and Slaughter-houses.		Other sanitary objects, including construction of Latrines, Dust-bins, Drains, &c.	
										Total Columns 12, 14, 16, 18, 20, 22, and 23.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.			Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.	Expenditure.	Allotment.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
District Local Board, Bijapur.	796,286	5,693	1,169	...	...	2,25,504	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taluka Local Board, Indi	92,472	870	122	...	7	3,840	33.91	67.67	1,302	881	...	...	...	...	1,302	881	...	...	...	...	...	...	...
Do. do. Sindgi	93,618	812	150	...	3	1,620	33.02	...	535	1,031	...	...	...	...	535	1,031	...	...	...	...	...	...	...
Do. do. Bijapur	108,397	868	100	...	6	2,410	31.63	99.54	1,967	1,958	...	...	...	...	1,967	1,958	...	...	...	...	...	...	...
Do. do. Bagevadi	102,426	764	121	...	7	4,369	66.83	67.53	2,920	1,972	...	...	...	...	2,920	1,972	...	...	...	...	...	...	...
Do. do. Muddeihal	81,572	564	154	...	3	2,270	82.11	88.95	1,864	1,668	...	...	...	...	1,864	1,668	...	...	...	...	...	...	...
Do. do. Bagalkot	114,402	683	173	...	3	7,795	69.02	53.48	5,380	2,877	...	...	...	...	5,380	2,877	...	...	...	...	...	...	...
Do. do. Padami	100,505	614	181	...	2	1,945	...	83.92	2,655	2,228	...	...	...	...	2,655	2,228	...	...	...	...	...	...	...
Do. do. Hungund	102,894	518	168	...	4	3,357	68.63	90.97	2,304	2,096	...	...	...	...	2,304	2,096	...	...	...	...	...	...	...
Total	796,286	5,693	1,169	...	35	253,110	7.48	77.67	18,927	14,701	...	...	...	...	18,927	14,701	...	...	...	...	...	...	...
District Local Board, Dhárwár.	1,050,533	4,535	1,472	...	...	235,400	19.09	78.84	44,919	35,212	...	...	...	...	44,949	35,212	...	...	...	...	...	...	...
Taluka Local Board, Dhárwár	126,817	425	173	...	2	5,715	...	28.40	6,913	1,963	...	...	...	...	6,913	1,963	...	...	...	...	...	...	...
Do. do. Hubli	117,778	311	91	...	3	4,737	60.04	58.72	2,844	1,670	...	...	...	...	2,844	1,670	...	...	...	...	...	...	...
Do. do. Navalgund	105,875	562	95	...	3	7,578	66.20	23.14	5,017	1,427	...	...	...	...	4,062	936	...	...	...	...	...	...	...
Do. do. Gadag	124,634	699	106	...	3	7,275	39.90	39.09	2,903	1,044	...	...	...	...	1,978	869	...	...	...	...	...	...	...
Do. do. Bankapur	85,602	343	163	...	1	4,781	39.43	32.36	1,885	610	...	...	...	...	1,885	610	...	...	...	...	...	...	...
Do. do. Ranebennur	92,970	405	129	...	...	4,438	57.86	80.89	2,568	2,077	...	...	...	...	2,568	2,077	...	...	...	...	...	...	...
Do. do. Hingal	74,506	299	171	...	...	4,670	89.46	50.43	4,178	2,107	...	...	...	...	4,178	2,107	...	...	...	...	...	...	...
Do. do. Karajgi	90,199	442	136	...	1	5,022	48.57	23.29	1,439	568	...	...	...	...	2,439	568	...	...	...	...	...	...	...
Do. do. Kalgaigi	55,360	279	180	...	2	3,828	45.87	30.24	2,756	531	...	...	...	...	1,756	531	...	...	...	...	...	...	...
Do. do. Kod	84,427	400	189	...	4	5,670	38.36	99.68	2,175	2,168	...	...	...	...	2,175	2,168	...	...	...	...	...	...	...
Do. do. Ron	92,365	370	86	...	1	4,659	...	59.07	5,974	3,529	...	...	...	...	5,974	3,529	...	...	...	...	...	...	...
Total	1,050,533	4,535	1,472	...	20	293,773	28.46	63.28	83,601	52,906	...	...	1,880	7.6	81,721	52,180	...	...	...	...	...	...	...
District Local Board, Kánara	446,156	3,943	1,406	...	...	49,826	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Taluka Local Board, Kárwár	53,213	281	59	...	...	1,312	5.26	79.17	72	57	...	...	...	...	72	57	...	...	...	...	...	...	...
Do. do. Ankola	36,937	375	93	...	...	1,604	16.83	94.81	270	256	...	...	...	...	70	58	...	...	...	...	...	...	...
Do. do. Kumata	62,792	222	125	...	...	1,383	22.05	97.70	305	298	...	...	...	...	305	298	...	...	...	...	...	...	...

The following sanitary works were undertaken in 1897-98.

Water-supply.

Rs. a. p.
2 new tanks dug, 1,892 7 10
10 new wells sunk, 4,612 12 11
Existing sources of supply re-paired ... 45,698 9 9
52,179 14 8

The following sanitary works were undertaken in 1897-98:

Water-supply.

Rs. a. p.
2 new tanks dug, 1,802 7 30
10 new wells sunk, 4,612 12 11
Existing sources of supply repaired 45,998 9 9
52,179 14 6

District Local Boards.	Population as per Census of 1891.	Area in square miles.	Number of Villages in the Circle.	Number of Villages conserved (Village Sanitation Act).		Entire Income of 1897-98.	Rate per cent. of allotment to estimated income.	Rate per cent. of sanitary expenditure to allotment.	1897-98.				Sanitary Allotment.				Conservancy.		Improvement of Village-sites.		Improvement of, including cleaning, repairing and construction of Tanks and Walls.		Sanitary arrangements at Fairs and Festivals.		Construction and repairs of Markets and Slaughter-houses.		Other sanitary objects, including construction and repair of Latrines, Dust-bins, Drains, &c.		Brief notes on important sanitary works undertaken or completed during the year.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
				Number of Unions.	Number of other Villages.				Rs.	98	99	Rs.	10	Expenditure.	Rs.	11	Expenditure.	Rs.	12	Expenditure.	Rs.	13	Expenditure.	Rs.	14	Expenditure.	Rs.	15		Expenditure.	Rs.	16	Expenditure.	Rs.	17	Expenditure.	Rs.	18	Expenditure.	Rs.	19	Expenditure.	Rs.	20	Expenditure.	Rs.	21	Expenditure.	Rs.	22	Expenditure.	Rs.	23	24																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
																																																							Total of Columns 12, 14, 16, 18, 20 and 22.	Total of Columns 13, 15, 17, 19, 21 and 23.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
District Local Board, Hyderabad.	8,83,836	8,312	1,583	...	...	57,520	9.24	98.51	Rs. 5,314	Rs. 5,235	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</

Government contribution to wards/villages sanitation Rs. 129 were contributed from Local Fund towards the conservancy of villages and the amount made over to Sanitary Board.

Four wells and one tank were completed during the year under report and two are in progress.

Do.	do.	Mehar ...	48,202	321	65	...	1	13,717	19-47	98-40	2,670	2,627	180	180	...	...	600	569	...	...	...	...	1,890	1,878
Do.	do.	Kakar ...	54,954	444	73	...	1	9,973	24-26	56-55	2,419	1,368	120	120	...	...	707	657	...	...	...	...	1,592	591
Do.	do.	Nasirabad...	44,644	417	66	...	2	9,963	14-79	70-65	1,472	1,040	...	...	...	...	850	421	...	...	...	...	622	619
		Total ...	915,058	8,039	1,163	...	7	295,602	18-48	78-68	54,641	42,991	1,082	798	...	...	16,182	8,060	...	...	...	...	37,377	34,133
District Local Board, Thar and Parkar ...																								
Taluka Local Board, Umarkot ...	Do.	Chachro ...	73,093	2,342	461	...	1	6,339	2-36	42-00	150	63	...	...	...	...	150	63	...	...	...	...	...	...
Do.	do.	Khapero ...	49,535	2,804	425	...	1	1,995	36-09	98-33	720	708	...	...	...	...	720	708	...	...	...	...	...	...
Do.	do.	Chapra ...	60,917	2,406	252	...	1	3,556	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Do.	do.	Sanghar ...	27,929	795	186	...	1	3,205	6-24	23-50	200	47	...	...	...	...	200	47	...	...	...	...	...	...
Do.	do.	Thar ...	55,537	2,908	600	...	1	1,544	5-51	11-76	85	10	...	...	...	...	85	10	...	...	...	...	...	...
Do.	do.	Parkar ...	41,178	1,618	307	...	1	1,960	2-55	54-00	50	27	...	...	...	...	50	27	...	...	...	...	...	...
Do.	do.	Mirpur ...	34,212	562	235	...	1	2,213	7-64	99-99	169	168	...	...	...	...	169	168	...	...	...	...	...	...
		Total ...	332,401	13,435	2,446	...	7	37,784	23-35	63-77	8,824	5,627	1,372	1,372	...	...	7,452	4,255	...	...	...	...	...	...
District Local Board, Upper Sind Frontier ...																								
Taluka Local Board, Jacobabad...	Do.	Thul ...	48,254	456	281	...	...	7,481	5-61	81-70	420	343	...	...	200	200	220	143	...	...	...	...	...	...
Do.	do.	Kashmor ...	44,856	728	462	...	...	11,459	4-19	65-62	480	315	...	...	150	...	330	315	...	...	...	...	...	...
Do.	do.	Shahdadpur.	53,981	796	347	...	...	7,541	9-28	93-29	700	653	...	...	400	375	300	278	...	...	...	...	...	...
Do.	do.		27,378	622	200	...	...	4,911	19-34	80-42	950	764	...	...	250	184	700	580	...	...	...	...	...	...
		Total ...	174,469	2,602	1,290	...	...	47,045	0-33	100-	156	156	156	156	...	...	...	...	...	...	...	...	...	...
Grand Total ...																								
			18,014,302	123,239	33,135	1	298	38,42,186	18-54	67-75	71,2,176	4,82,465	9,265	7,444	13,862	8,294	6,28,510	4,14,924	915	504	725	545	58,889	50,751

Statement showing the Principal Diseases causing Mortality among Eurasian Civil Population of the Bombay Presidency for the year 1898.

No.	Collectomtes.	GENERAL DISEASES.										LOCAL DISEASES.										CONDITIONS NOT NECESSARILY ASSO- CIATED WITH GENERAL OR LOCAL DISEASES.					Unspecified causes.	Total, exclusive of still-born.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
		A.										B.										Still-born.	Premature birth.	Old age and debility.	Poison.	General Injuries.			Local Injuries.	Drowning.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		Small-pox.	Measles.	Plague.	Fever.				Cholera.	All other diseases classed under Section A of General Diseases.	Leprosy.	Dropsy.	All other diseases classed under Section B of General Diseases.	Nervous system.	Disease of the Eye, Ear and Nose.	Circulatory system.	Absorbent system.	Respiratory system.	Digestive system.		Urinary system.										Generative system.	Organs of Locomotion and Cellular Tissue.	Cutaneous system.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
					Enteric fever.	Simple continued.	Ague.	Remittent.											Typhoid.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
1	Khandesh ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...</

APPENDIX VII.

Statement showing the sickness and mortality among the children of the Lawrence Asylum, Mount Abu, for the year 1898.

Months.	Average number of children who have occupied rooms on the lower floor in the Asylum.	CAUSES OF ADMISSIONS AND DEATHS.												RATIO PER 1,000 OF STRENGTH.											
		Enteric Fever.		Remittent Fever.		Ague.		Diarrhoea.		Fracture of fore-arm.		Conjunctivitis.		Laryngitis.		Boil.		Quinsy.		Total.					
		Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.	Admissions.	Deaths.				
January 1898.	83	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
February "	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
March "	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
April "	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
May "	81	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
June "	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
July "	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
August "	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
September "	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
October "	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
November "	82	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
December "	65	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				
Total	81	2	...	2	...	4	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...				
For 1897	79	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...				

APPENDIX VIII.

ANNUAL FORM NO. I.—Showing the BIRTHS registered in the DISTRICTS of the BOMBAY PRESIDENCY during 1898.

1	2	3			4			5			6	7	8	9			
No.	Districts.	POPULATION ACCORDING TO CENSUS OF 1891.			NUMBER OF BIRTHS REGISTERED.			RATIO OF BIRTHS PER 1,000 OF POPULATION.			Number of Males born to every 100 females born.	Excess of Births over Deaths per 1,000 of Population.	Excess of Deaths over Births per 1,000 of Population.	MEAN RATIO OF BIRTHS PER 1,000 DURING PREVIOUS FIVE YEARS.			
		Male.	Female.	Total.	Male.	Female.	Total.	Male.	Female.	Total.				Male.	Female.	Total.	
	Western Registration District.																
1	Khândesh	745,550	714,789	1,460,319	30,412	29,085	59,497	20·83	19·91	40·74	104·56	12·33	...	23·33	21·93	45·2	
2	Nâsik	430,327	410,760	841,087	16,219	15,257	31,476	19·28	18·14	37·42	106·31	5·50	...	22·79	21·58	44·37	
3	Thâna	427,483	391,484	818,967	12,809	11,899	24,708	15·64	14·53	30·17	107·94	1·83	...	16·27	15·39	31·66	
4	City of Bombay ...	507,681	298,463	806,144	5,507	5,037	10,544	6·83	6·25	13·08	109·33	...	50·95	9·00	8·31	17·31	
5	Kolâba	298,889	295,890	594,779	10,040	9,625	19,665	16·88	16·18	33·06	104·37	9·41	...	17·23	16·36	33·69	
	Central Registration District.																
6	Ahmednagar	450,900	436,756	887,656	16,354	15,469	31,823	18·43	17·42	35·85	105·72	14·11	...	22·98	21·68	44·66	
7	Poonâ	540,949	520,500	1,061,449	16,384	15,151	31,535	15·43	14·27	29·70	108·14	6·88	...	19·25	17·64	36·89	
8	Sholâpur	381,155	369,100	750,255	11,017	10,568	21,575	14·68	14·07	28·75	104·35	7·61	...	20·05	18·98	39·03	
9	Sâtâra	613,501	612,010	1,225,511	18,633	17,725	36,358	15·21	14·46	29·67	105·12	2·84	...	19·59	18·57	38·16	
10	Ratnâgiri	513,581	502,281	1,015,862	13,860	13,258	27,118	12·53	11·99	24·52	104·54	4·70	...	16·16	15·12	31·28	
	Southern Registration District.																
11	Belgaum	510,391	501,062	1,011,453	17,403	16,377	33,780	17·20	16·19	33·40	106·26	...	8·37	19·52	18·69	38·22	
12	Dhargwâr	527,632	522,901	1,050,533	18,482	18,127	36,609	17·59	17·25	34·85	101·95	...	28·96	20·70	20·04	40·74	
13	Bijâpur	398,070	398,216	796,286	11,383	10,755	22,138	14·29	13·50	27·80	105·84	8·47	...	17·98	17·34	35·32	
14	Kanara	234,241	211,915	446,156	5,465	5,136	10,601	12·25	11·51	23·76	106·40	...	3·10	15·58	14·51	30·09	
	Gujarât Registration District.																
15	Surat	321,541	328,283	649,824	12,325	11,968	24,293	18·96	18·42	37·38	102·98	5·96	...	20·23	19·36	39·59	
16	Broach	174,933	166,517	341,450	7,118	6,708	13,826	20·85	19·64	40·49	106·11	2·37	...	20·71	19·51	40·22	
17	Kaira	460,566	410,963	871,529	17,994	16,296	34,290	20·67	18·44	39·11	110·42	11·07	...	17·95	15·80	33·75	
18	Panch Mahâls ...	162,073	151,308	313,381	6,893	6,373	13,266	21·99	20·34	42·33	108·16	14·67	...	19·41	18·56	37·97	
19	Ahmedabad	472,977	447,951	920,928	16,067	14,248	30,315	17·45	15·47	32·92	112·77	5·41	...	16·65	15·15	31·80	
	Sind Registration District.																
20	Karâchi	310,341	250,672	561,013	8,488	7,027	15,515	15·12	12·53	27·65	120·72	4·56	...	14·89	12·64	27·53	
21	Hyderabad	480,322	403,514	883,836	8,673	6,318	14,991	9·81	7·15	16·96	137·27	5·92	...	10·90	8·19	19·09	
22	Thar and Parkar ...	184,449	147,952	332,401	5,218	4,194	9,412	15·70	12·62	28·32	124·42	13·74	...	14·79	11·87	26·66	
23	Shikârpur	493,603	421,465	915,068	13,336	11,133	24,469	14·57	12·17	26·74	119·79	6·76	...	15·95	13·09	29·04	
24	Upper Sind Frontier.	96,231	78,283	174,514	2,560	2,012	4,572	14·67	11·53	26·20	127·24	8·91	...	16·56	12·67	29·23	
	Total for the Presidency	9,737,388	9,082,960	18,820,348	302,635	279,736	582,371	16·08	14·86	30·94	108·19	1·78	...	18·33	16·95	35·28	

ANNUAL FORM NO. II.—Statement of Births and Deaths registered in the Districts of the Bombay Presidency during the year 1898.

1	2	3	4	5	6	7	8	9	10														
Serial Number.	Districts.	Area in square miles.	Average Population per square mile.	Population (Census, 1891).		Births.		Deaths per 1,000 of Population from					Mean Ratio of Deaths per 1,000 Living Previous Five Years.										
				Population (Census, 1891).		Total Number.	Birth-rate per 1,000 of Population.	Cholera.	Small-pox.	Fever.	Typhoid and Diarrhoea.	Injuries.	All other causes.	Male.	Female.	Total.	Male.	Female.	Total.				
				Male.	Female.																		
Western Registration District.																							
	Khandesh	...	9,944	746,550	714,769	1,461,319	59,467	40	21,701	19,700	41,401	110	0.42	11.80	5.90	0.27	10.12	29.23	27.16	28.41	38.54	36.12	37.35
	Nasik	...	5,940	430,327	410,760	841,087	31,476	37	13,863	12,688	26,551	106	0.22	13.73	6.33	0.18	11.36	32.21	31.62	31.92	42.65	40.20	41.50
	Thana	...	3,553	427,483	391,484	818,967	24,708	30	12,338	10,875	23,213	113	0.01	18.91	1.66	0.11	7.49	28.86	27.78	28.54	28.52	28.63	28.63
	City of Bombay	...	22	507,681	298,463	806,144	10,444	13	39,604	21,113	60,717	144	0.13	27.66	4.36	0.67	31.24	60.08	70.74	64.73	33.76	47.14	48.42
	Kolaba	...	2,164	208,889	205,890	414,779	19,665	33	7,325	6,740	14,065	108	0.03	12.50	2.33	0.40	7.79	24.60	22.77	23.65	31.70	30.25	30.96
Central Registration District.																							
	Ahmednagar	...	6,666	460,300	436,766	897,066	37,623	35	10,237	9,444	19,681	113	0.01	4.72	4.71	0.25	11.89	22.75	20.77	21.74	40.53	37.56	39.70
	Poona	...	5,348	540,949	520,400	1,061,349	31,535	29	12,462	11,736	24,198	106	0.07	14.11	3.87	0.22	4.54	23.09	22.64	22.82	39.25	56.66	47.75
	Sholapur	...	4,521	381,155	369,100	750,255	21,376	28	8,172	7,692	15,864	106	0.21	9.03	6.54	0.38	4.55	21.44	20.84	21.14	38.19	35.97	37.10
	Satara	...	4,988	613,501	612,010	1,225,511	36,568	29	16,359	16,521	32,880	99	0.02	12.22	5.16	0.67	9.16	26.06	26.99	26.83	30.05	36.79	37.92
	Ratnagiri	...	3,922	513,481	502,281	1,015,762	27,118	24	11,207	10,714	21,921	104	...	12.64	3.29	0.45	3.44	21.82	18.09	19.53	20.68	22.69	24.55
Southern Registration District.																							
	Belgaum	...	4,657	510,391	501,662	1,012,053	28,780	33	21,816	20,439	42,255	106	0.09	18.90	5.10	0.37	17.27	42.74	40.79	41.77	34.55	33.77	34.16
	Dhule	...	4,555	527,632	522,801	1,050,433	36,609	34	34,049	32,986	67,035	103	0.16	36.51	2.65	0.32	20.01	64.53	63.68	63.81	37.22	36.45	36.84
	Bijapur	...	5,757	398,070	398,216	796,286	22,138	27	7,686	7,405	15,091	107	0.12	9.49	2.10	0.32	7.00	20.06	18.19	19.33	20.93	29.93	30.43
	Kanara	...	3,911	224,241	211,915	436,156	19,601	23	6,299	6,086	12,385	110	0.18	14.21	1.62	0.41	10.29	20.89	20.53	20.86	28.58	27.93	28.26
Guzerat Registration District.																							
	Surat	...	1,662	321,541	328,283	649,824	21,293	37	10,268	10,152	20,420	101	...	16.01	0.97	0.45	13.59	31.93	30.92	31.42	35.46	33.72	34.58
	Broach	...	1,463	174,933	166,517	341,450	13,826	40	6,519	6,407	12,926	100	...	28.08	0.60	0.42	9.02	37.26	39.00	38.12	39.11	37.58	38.52
	Kaira	...	1,609	460,460	410,463	870,923	34,260	39	12,709	11,730	24,439	108	...	17.28	0.16	0.35	10.25	27.59	28.54	28.04	16.65	34.18	35.58
	Panch Mahals	...	1,613	162,073	151,308	313,381	13,266	43	4,372	4,268	8,640	101	...	24.52	0.08	0.13	2.73	26.98	28.41	27.66	26.18	24.43	25.32
	Ahmedabad	...	3,821	472,977	447,951	920,928	30,315	32	13,346	11,986	25,332	111	0.01	20.26	0.43	0.29	6.52	28.22	26.71	27.51	24.18	32.16	33.19
Sind Registration District.																							
	Karachi	...	14,115	310,341	250,672	561,013	15,510	27	7,007	5,344	12,351	142	0.02	17.14	0.77	0.48	4.67	24.51	21.52	23.09	22.14	22.74	22.41
	Hyderabad	...	8,409	480,324	403,614	883,938	14,891	16	5,500	4,258	9,758	129	...	8.50	0.49	0.39	1.36	11.45	10.55	11.74	15.89	14.99	15.52
	Thar and Parkar	...	13,960	184,449	147,952	332,401	9,412	28	2,594	2,253	4,847	115	0.18	8.25	0.07	0.44	0.65	14.06	15.23	14.58	17.56	18.21	17.85
	Shikarpur	...	9,277	403,693	421,455	825,148	24,409	26	7,765	8,514	16,279	114	...	17.27	0.30	0.40	2.01	10.78	20.20	19.98	21.94	22.54	22.22
	Upper Sind Frontier	...	2,863	98,231	78,238	176,469	4,572	26	1,659	1,383	3,042	122	0.04	15.93	0.04	0.42	0.85	17.24	17.86	17.27	20.74	22.06	21.31
Total for the Presidency			124,130	9,737,886	9,046,000	18,783,886	592,371	30	288,796	260,029	548,825	20	0.23	16.07	3.62	0.37	9.37	29.66	28.63	29.16	32.30	31.51	31.99

N. B.—Those born dead are not included in this or any of the other statements.

ANNUAL FORM NO. III.—DEATHS registered in the DISTRICTS of the BOMBAY PRESIDENCY
during each month of the year 1898.

1	2	3												4	5
No.	Districts.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total Deaths registered during the year.	No.
<i>Western Registration District.</i>															
1	Khândesh	3,428	2,869	3,257	3,593	3,053	2,264	2,560	3,761	3,943	4,145	4,422	4,196	41,491	1
2	Nasik	2,565	1,999	2,080	1,793	1,435	1,374	1,673	2,362	2,594	2,792	3,124	3,070	26,551	2
3	Thána	2,233	1,842	1,924	1,811	1,437	1,325	1,791	2,430	1,871	1,809	2,152	2,588	24,213	3
4	City of Bombay	6,669	8,146	9,147	5,076	2,773	1,977	2,267	3,061	3,416	3,472	2,449	3,764	51,617	4
5	Kolába	1,564	1,285	1,432	1,109	954	811	784	1,137	1,039	1,005	1,464	1,542	14,065	5
<i>Central Registration District.</i>															
6	Ahmednagar	1,732	1,329	1,437	1,501	1,244	1,159	1,461	1,787	1,740	1,988	2,043	1,880	19,301	6
7	Poona	2,370	1,777	1,723	1,636	1,473	1,319	1,694	2,309	2,273	2,598	2,690	2,364	21,223	7
8	Sholapur	1,921	1,525	1,029	1,058	957	616	1,068	1,445	1,445	1,490	1,552	1,423	15,861	8
9	Sátara	3,045	2,093	1,823	1,626	1,668	1,706	2,165	2,847	3,496	4,926	4,262	3,323	32,380	9
10	Ratnágiri	2,503	2,935	2,075	1,945	1,691	1,611	1,670	1,760	1,655	1,540	1,674	1,762	21,921	10
<i>Southern Registration District.</i>															
11	Belgaum	2,433	1,971	2,072	1,961	2,053	2,186	3,112	4,274	5,275	7,829	5,582	3,487	42,255	11
12	Dhárwar	2,966	2,408	2,893	3,994	3,236	3,429	3,800	5,811	8,586	11,330	11,533	7,959	67,035	12
13	Bijápúr	1,365	967	1,023	1,000	939	1,007	1,119	1,211	1,281	1,754	1,873	1,871	15,390	13
14	Kánara	1,367	1,138	980	924	936	922	1,016	976	913	792	920	1,113	11,985	14
<i>Gujarát Registration District.</i>															
15	Surat	2,151	2,076	2,120	1,437	1,222	1,034	1,592	1,748	1,508	1,587	1,848	2,097	20,429	15
16	Broách	866	698	773	719	693	605	762	1,196	1,311	1,887	1,807	1,704	13,016	16
17	Kaira	1,624	1,530	2,177	2,002	1,750	1,683	1,879	2,323	2,176	2,424	2,561	2,399	21,439	17
18	Panch Mahals	500	522	736	632	583	563	556	642	721	863	1,205	1,147	8,670	18
19	Ahmedabad	2,423	2,322	2,678	2,107	1,995	1,525	1,762	2,012	1,964	2,125	2,038	2,093	25,332	19
<i>Sind Registration District.</i>															
20	Karachi	1,370	1,007	982	1,377	2,366	979	673	788	592	806	969	1,062	12,951	20
21	Hyderabad	1,249	989	908	814	631	630	606	606	633	754	919	959	9,758	21
22	Thar and Parkar	659	616	568	401	331	255	265	254	288	311	368	472	4,847	22
23	Shikarpur	2,674	1,748	1,633	1,225	1,135	992	1,044	1,012	1,151	1,799	2,070	1,796	18,279	23
24	Upper Sind Frontier	399	221	257	193	237	201	175	171	211	311	384	237	3,017	24
Total for the Presidency ...		49,876	43,213	45,747	39,181	34,816	30,313	35,693	46,038	50,092	60,336	59,707	53,763	548,825	
Ratio of deaths per 1,000 in each month ...		2.65	2.30	2.43	2.08	1.85	1.61	1.89	2.45	2.66	3.21	3.17	2.86	29.16	

ANNUAL FORM NO. IV.—DEATHS registered according to AGE in the DISTRICTS of the BOMBAY PRESIDENCY during the year 1898.

1	2	3		4		5		6		7		8		9		10		11		12		13
No.	Districts.	Under 1 year.		1 year and under 5.		5 and under 10.		10 and under 15.		15 and under 20.		20 and under 30.		30 and under 40.		40 and under 50.		50 and under 60.		60 and upwards.		No.
		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
Western Registration District.																						
1	Khândesh	6,342	5,270	5,322	5,511	1,213	1,115	518	505	327	424	913	1,234	1,337	1,014	1,456	879	1,438	869	2,919	2,879	1
2	Nasik	3,276	2,738	2,763	2,952	773	799	510	520	364	449	1,080	1,233	1,185	993	1,054	769	1,122	815	1,732	1,815	2
3	Thana	1,845	1,513	1,691	1,778	754	846	606	462	482	426	1,364	1,288	1,556	1,198	1,487	999	1,129	826	1,424	1,624	3
4	City of Bombay	3,324	2,899	1,774	1,809	987	1,089	1,674	1,587	1,803	1,408	6,068	3,602	5,787	2,711	3,261	1,727	2,048	1,220	3,178	3,061	4
5	Kolaba	1,299	1,080	1,102	1,087	402	418	232	247	200	228	606	698	734	604	743	482	787	574	1,221	1,352	5
Central Registration District.																						
6	Ahmednagar	3,221	2,550	2,176	1,962	363	385	248	229	176	233	536	537	608	541	608	413	653	452	1,668	1,742	6
7	Poona	3,168	2,331	2,251	2,055	713	663	493	502	529	688	906	1,053	970	932	791	801	862	829	1,788	1,882	7
8	Sholapur	2,511	1,612	1,498	1,346	453	450	265	321	231	285	525	640	641	539	708	622	747	702	1,053	1,125	8
9	Satara	2,661	2,237	2,477	2,583	1,204	1,252	825	862	634	748	1,472	1,748	1,526	1,459	1,439	1,240	1,569	1,365	2,552	3,037	9
10	Ratnagiri	1,382	1,221	1,430	1,445	546	484	306	308	309	358	797	911	973	888	1,081	712	1,239	876	1,115	1,352	10
Southern Registration District.																						
11	Belgaum	2,142	1,804	3,174	3,341	2,018	2,049	1,664	1,603	978	811	2,430	2,233	2,552	2,070	2,207	1,600	1,751	1,297	2,900	3,622	11
12	Dharwar	3,351	2,948	4,677	4,906	3,178	3,246	2,901	2,698	1,351	1,295	3,868	3,942	4,190	3,871	3,646	2,890	3,000	2,498	3,547	4,689	12
13	Bijapur	1,371	1,064	1,455	1,411	647	669	339	310	143	136	546	650	739	695	795	528	741	513	1,209	1,028	13
14	Kanara	1,120	965	670	656	237	264	158	163	176	213	593	690	847	642	937	506	725	504	831	965	14
Gujarat Registration District.																						
15	Surat	2,203	2,013	1,613	1,761	580	616	392	407	306	322	809	932	840	831	849	638	841	624	1,830	2,008	15
16	Broach	1,768	1,547	1,565	1,517	274	282	154	165	122	142	447	508	496	528	480	422	520	463	696	923	16
17	Kaira	2,881	3,307	2,997	2,439	466	377	301	242	263	201	939	840	1,079	931	1,119	805	1,168	859	1,491	1,669	17
18	Panch Mahals	917	890	1,156	1,259	303	236	110	123	106	88	274	317	340	339	374	239	366	268	432	524	18
19	Ahmedabad	2,964	2,630	2,876	2,625	523	497	298	276	330	296	1,168	946	1,271	1,122	1,357	1,081	1,213	1,057	1,346	1,516	19
Sind Registration District.																						
20	Karachi	1,576	1,239	598	523	358	316	306	230	300	217	995	743	1,066	612	788	386	563	288	1,069	790	20
21	Hyderabad	1,054	953	581	538	207	178	147	115	153	183	579	592	688	567	675	378	549	277	867	567	21
22	Thar and Parkar	697	617	296	253	111	126	75	57	69	75	221	264	245	223	274	146	200	638	400	334	22
23	Shikarpur	2,422	2,274	1,194	1,183	440	375	213	182	234	254	764	901	1,114	934	859	553	934	598	1,491	1,310	23
24	Upper Sind Frontier	425	366	264	219	84	77	40	42	39	39	96	136	165	148	170	96	815	74	252	161	24
Total for the Presidency ...		53,457	46,133	45,870	45,062	16,837	16,858	12,783	12,106	9,620	9,482	28,006	26,611	30,939	24,387	27,256	18,569	24,317	17,981	39,311	42,549	
Ratio per 1,000 living ...		157.22	135.50	42.84	40.50	12.36	13.46	12.45	15.25	12.40	13.64	18.59	15.80	21.02	18.85	23.09	21.64	42.16	33.28	92.80	86.05	

ANNUAL FORM NO. V.—DEATHS registered according to CLASSES in the DISTRICTS of the BOMBAY PRESIDENCY during the year 1898.

1		2		3						4						5					
		POPULATION ACCORDING TO CENSUS OF 1891.						NUMBER OF DEATHS REGISTERED.						RATIO OF DEATHS PER 1,000 OF POPULATION.							
No.	Districts.	Maho- medans.	Hindus.	Chris- tians.	Pár- sis.	Other Classes.	Total.	Maho- medans.	Hindus.	Chris- tians.	Pár- sis.	Other Classes.	Total.	Maho- medans.	Hin- dus.	Chris- tians.	Pár- sis.	Other Classes.	Total.		
Western Registration District.																					
1	Khándesh	112,049	1,280,341	642	503	86,779	1,460,319	2,733	38,739	8	8	3	41,491	24.39	30.74	12.46	15.75	3.03	28.41		
2	Násik	42,059	784,713	1,188	407	12,720	841,087	1,667	25,143	38	2	1	26,861	33.63	31.04	31.99	4.91	0.07	31.92		
3	Thána	36,682	729,173	42,433	3,880	6,688	818,967	2,105	19,714	1,333	38	23	23,213	57.59	27.03	31.34	9.78	3.44	28.34		
4	City of Bombay ...	155,217	568,516	29,712	47,458	5,211	86,644	11,257	36,613	1,481	1,866	410	51,017	72.61	64.40	49.85	39.11	78.68	64.03		
5	Kolába	28,948	561,609	879	201	3,162	594,779	716	13,261	16	2	70	14,065	24.74	23.01	18.24	9.95	22.20	23.05		
Central Registration District.																					
6	Ahmednagar	47,071	834,787	5,234	188	376	887,656	1,061	18,200	35	5	...	19,301	22.54	21.80	6.67	26.59	...	21.74		
7	Poona	51,200	1,092,248	4,911	2,025	1,034	1,061,449	1,090	22,946	85	30	77	24,228	21.20	22.89	17.30	14.81	...	22.82		
8	Sholápur	53,971	695,381	647	242	21	750,255	1,119	14,718	15	2	10	15,864	20.73	21.17	23.18	8.62	...	21.14		
9	Sátara	43,256	1,181,540	425	134	156	1,225,511	1,131	31,710	15	1	23	32,880	26.15	26.94	35.26	7.46	...	26.33		
10	Ratnágiri	79,673	1,021,997	4,142	15	35	1,105,862	2,079	19,795	47	...	...	21,921	26.09	19.37	11.35	...	...	19.22		
Southern Registratio District.																					
11	Belgaum	80,484	924,892	5,809	61	207	1,011,453	4,055	37,954	244	...	2	42,255	50.03	41.04	42.00	...	9.66	41.77		
12	Dharwár	131,001	918,898	3,441	135	59	1,050,533	7,933	58,894	154	...	53	67,035	60.56	64.32	44.76	7.40	...	63.81		
13	Bijápur	83,522	706,957	774	24	9	796,266	1,645	13,715	12	...	18	15,390	18.98	19.40	13.56	...	...	19.33		
14	Kanara	26,960	404,208	15,444	10	34	446,166	760	10,907	314	...	4	11,985	28.92	26.98	20.33	...	...	26.86		
Gujarát Registratio District.																					
15	Surat	52,307	584,318	375	12,787	37	640,824	1,903	18,197	14	306	...	20,420	36.38	31.11	37.33	23.99	...	31.42		
16	Broach	71,263	248,998	8	3,373	17,828	341,450	2,863	10,041	3	109	...	13,016	40.18	40.33	34.2	33.30	...	38.12		
17	Kaira	77,443	791,085	2,222	153	26	871,629	1,730	22,083	26	...	...	24,429	22.34	28.65	11.70	...	...	28.04		
18	Panch Mahals ...	18,651	233,488	48	108	11,086	313,381	673	7,906	2	...	...	8,670	36.08	28.20	41.67	...	...	37.66		
19	Ahmedabad	90,487	828,383	808	835	415	920,925	2,471	22,824	15	21	1	25,332	27.31	27.65	18.56	25.15	2.41	27.51		
Sind Registratio District.																					
20	Karachi	453,188	100,646	2,447	1,408	3,324	561,013	8,731	4,015	70	20	114	12,951	10.27	36.88	28.61	14.3	34.30	23.04		
21	Hyderabad	691,948	175,000	179	46	16,603	883,836	6,77	2,932	...	3	53	9,758	40.78	16.78	...	65.22	3.78	11.08		
22	Thar and Párkar ...	185,942	91,39	8	1	55,119	332,461	2,528	1,655	...	...	694	4,847	13.66	17.91	...	...	12.40	14.58		
23	Shikárpur	728,661	182,906	83	71	3,337	13,694	9,656	4,511	7	2	65	18,279	16.79	24.66	84.34	28.17	19.48	19.99		
24	Upper Sind Frontier	155,408	18,646	60	8	397	174,469	2,508	49	...	...	19	3,017	16.14	20.34	...	...	47.86	17.2		
Total of the Presidency		3,501,940	14,897,629	122,089	73,945	224,773	18,820,346	83,222	457,632	3,934	2,406	1,631	548,825	23.76	30.71	33.22	32.54	7.25	29.16		

N.B.—This and all the other statements refer to Natives only and not to Europeans. Hindus include Hindus of all castes, Jains, Brahmins and Aborigines. In the Western Central, Southern and Gujarat Registration Districts, Aborigines are included among Hindus and in Sind among Mahomedans. Other castes include Bhudhists, Jews, Sikhs and unspecified.

ANNUAL FORM NO. VI.—DEATHS registered from DIFFERENT CAUSES in the DISTRICTS and TOWNS of the BOMBAY PRESIDENCY during the year 1898.

1	2	3	4	5	6	7	8					9	10	11					12			
No.	Districts and Towns.	Population according to Census of 1891.	Cholera.	Small-pox.	Fever*.	Dysentery and Diarrhoea.	INJURIES.					All other causes.	Total Deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.					No.			
							Suicide.		Wounding or acci. dent.	Snake-bite or killed by wild beasts.	Total.			Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.	Injuries.		All other causes.	From all causes.	
							Male.	Female.													For the year.	Mean of previous five years.
A.—DISTRICTS.																						
Western Registration District.																						
1	Khândesh ...	1,403,671	...	61*	16,676	7,894	16	12	316	39	383	14,012	39,570	...	44	11.88	5.62	27	9.96	28.10	37.46	1
2	Nasik ...	791,718	...	135	11,214	4,884	4	6	169	38	217	8,762	23,212	...	17	14.16	6.17	27	11.67	31.84	41.10	2
3	Thâna ...	738,104	6	63	14,541	1,233	19	19	218	139	395	5,683	21,921	01	04	18.43	1.06	50	7.20	27.78	28.55	3
4	Kolâba ...	571,667	9	3	7,182	1,623	3	2	162	57	224	4,200	13,331	01	01	12.56	2.84	39	7.50	23.32	29.85	4
Central Registration District.																						
5	Ahmednagar ...	837,162	...	138	3,951	2,935	11	4	168	23	296	9,724	17,954	...	17	4.72	4.70	24	11.61	21.44	38.35	5
6	Poona ...	890,001	...	68	13,891	2,672	9	5	160	32	208	3,062	19,931	...	08	15.60	3.90	23	3.48	22.39	38.33	6
7	Sholâpur ...	648,186	...	81	6,613	4,301	4	4	203	29	240	2,097	17,335	...	13	19.20	6.64	37	3.24	2.58	34.63	7
8	Sâtârâ ...	1,175,242	...	23	14,349	6,667	8	7	358	58	451	19,118	31,018	...	02	12.21	5.16	37	8.63	29.39	37.84	8
9	Ratnâgiri ...	1,081,468	...	...	13,613	3,537	7	3	212	270	492	3,647	21,289	...	...	12.59	3.27	45	3.37	19.68	24.57	9
Southern Registration District.																						
10	Belgaum ...	949,856	97	33	15,214	4,880	23	33	229	61	346	16,290	36,859	10	03	16.02	5.14	38	17.15	38.80	33.67	10
11	Dhârwar ...	928,179	3,639	137	34,869	2,728	24	35	199	32	290	18,843	69,106	3.92	15	37.57	2.51	31	29.30	64.70	30.12	11
12	Bijâpur ...	774,911	2	98	7,432	1,709	22	32	155	23	232	5,277	14,771	...	13	9.59	2.92	29	6.74	19.07	30.6	12
13	Kânara ...	420,928	78	107	6,153	637	13	14	132	13	172	4,841	11,508	19	25	14.62	1.66	43	19.31	27.34	28.65	13
Gujarat Registration District.																						
14	Surat ...	536,471	...	...	9,000	274	10	6	189	50	235	5,985	15,584	...	...	17.26	52	45	11.37	29.61	33.95	14
15	Broach ...	289,243	...	...	8,817	130	3	4	79	26	112	1,841	10,900	...	...	30.47	45	38	6.35	37.62	40.06	15
16	Kaira ...	808,429	...	1	14,049	109	10	25	199	45	279	7,437	21,875	...	...	17.44	11	35	9.23	27.15	35.17	16
17	Panch Mahâls ...	285,755	...	1	6,943	8	4	6	53	32	95	470	7,522	...	...	21.02	13	33	1.64	26.32	24.80	17
18	Ahmedabad ...	729,832	...	6	15,362	131	4	21	108	60	202	1,880	17,581	...	01	21.14	18	28	2.58	24.10	30.67	18
Sind Registration District.																						
19	Karâchi ...	464,004	...	10	5,876	99	3	3	133	76	215	898	7,068	...	02	12.64	21	46	1.94	15.36	18.35	19
20	Hyderabad ...	629,324	...	3	7,462	56	9	2	142	154	307	425	8,254	...	...	9.06	07	37	51	9.95	14.05	20
21	Thar and Pârkar ...	328,709	...	61	4,288	21	...	5	50	88	143	215	4,678	...	19	12.89	06	43	65	14.23	17.70	21
22	Shikârpur ...	882,122	...	...	14,410	136	5	8	204	115	332	628	15,506	...	...	17.71	07	41	77	19.09	32.24	22
23	Upper Sind Frontier ...	166,211	...	7	2,583	3	3	6	37	27	73	20	2,686	...	04	15.51	02	44	12	16.16	20.57	23
Total of District		16,515,973	3,882	1,592	154,513	46,768	214	262	3,855	1,496	5,827	125,937	489,489	23	10	15.41	2.83	35	7.03	26.55	31.69	

* Deaths from Plague are included in fever.

1	2	3	4	5	6	7	8					9	10	11								12
No.	Districts and Towns.	Population according to Census of 1891.	Cholera.	Small-pox.	Fever.	Dysentery and Diarrhoea.	INJURIES.					All other causes.	Total deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.								No.
							Suicide.		Wounding or Acci- dent.	Snake-bite or killed by wild beasts.	Total.			Cholera.	Small-pox.	Fever.	Dysentery Diarrhoea.	Injuries.	All other causes.	From all causes.		
							Male.	Female.													For the year.	
B.—TOWNS.																						
Khandesh District.																						
1	Dhulia	21,871	...	1	230	196	...	1	2	...	3	237	657	...	05	10.06	8.96	14	10.84	30.04	34.16	
2	Nandurbār	7,670	...	...	145	137	...	...	5	...	7	56	345	...	...	18.90	17.86	91	7.30	44.98	35.32	
3	Chopda	15,655	...	2	162	241	...	1	4	1	6	146	557	...	12	10.35	15.39	38	9.33	35.57	37.59	
4	Nasirabad	11,492	...	...	31	136	...	...	1	...	1	194	362	...	...	2.70	11.87	09	16.93	31.58	31.14	
Nasik District.																						
5	Nasik	24,406	...	19	240	222	...	...	9	1	10	318	809	...	78	9.53	9.09	41	13.03	33.14	52.12	
6	Yeola	18,861	...	35	66	184	...	...	5	...	5	341	631	...	1.86	3.50	9.76	26	18.08	33.46	36.63	
7	Deolali Cantonment	2,293	...	...	21	12	...	...	...	...	...	72	105	...	...	9.16	5.24	...	31.40	45.79	21.37	
8	Malegaon do.	3,759	...	...	10	19	...	...	2	...	2	63	94	...	...	2.66	5.05	53	16.76	25.01	41.23	
Thana District.																						
9	Thana	17,455	1	...	449	96	1	...	12	...	13	333	892	06	...	25.72	5.50	74	19.08	51.10	16.58	
10	Kalyān	12,608	...	...	247	33	...	...	6	...	6	114	400	...	...	19.59	2.62	48	9.12	31.73	35.85	
11	City of Bombay	806,144	104	55	22,215	3,520	67	39	430	4	540	25,183	51,617	13	07	27.50	4.36	67	31.24	64.03	38.42	
Koldoba District.																						
12	Panvel	10,417	6	...	156	88	...	...	4	...	4	191	415	58	...	14.97	5.57	38	18.33	39.83	27.45	
13	Ahbab	5,889	...	...	49	36	...	...	4	...	4	107	196	...	...	8.32	6.11	68	18.18	33.29	35.84	
14	Mahād	6,869	...	...	50	23	...	...	6	...	6	44	123	...	...	7.28	3.35	87	6.41	17.91	25.76	
Ahmednagar District.																						
15	Ahmednagar	36,031	2	2	189	158	1	...	8	...	9	594	954	05	05	5.25	4.33	25	16.48	23.47	56.51	
16	Sangamner	9,733	...	...	44	79	...	...	2	...	2	235	350	...	...	4.52	8.12	21	23.11	35.96	45.31	
17	Ahmednagar Cantonment	4,730	...	...	7	7	...	...	...	...	...	29	43	...	...	1.48	1.48	...	6.13	9.09	29.51	
Poona District.																						
18	Poona	118,657	1	7	861	1,252	1	2	23	5	31	1,078	3,230	...	06	7.26	10.55	26	9.09	27.22	41.03	
19	Junnar	11,905	...	...	92	75	...	...	...	...	...	151	3	8	...	7.73	6.29	...	12.68	26.70	33.35	
20	Poona Cantonment	31,134	...	...	76	54	...	...	4	...	4	432	566	...	...	2.44	1.73	13	13.87	18.17	32.47	
21	Kirkee do.	9,749	...	1	59	50	...	...	2	...	2	71	183	...	10	6.06	5.12	21	7.28	18.77	31.08	
Sholapur District.																						
22	Sholapur	61,564	2	9	253	249	1	4	30	1	36	702	1,251	03	15	4.11	4.05	58	11.40	20.52	53.13	
23	Barsi	20,552	...	59	238	225	2	...	4	1	7	135	664	...	2.87	11.58	10.95	34	6.57	32.31	49.09	
24	Pandharpur	19,953	1	5	141	130	...	...	5	...	5	332	614	05	25	7.07	6.52	25	16.64	30.78	55.48	
Satara District.																						
25	Satara	25,748	1	...	531	141	2	...	6	...	8	311	992	04	...	20.62	5.48	31	12.08	38.53	35.26	
26	Karad	12,085	1	...	47	39	1	...	6	...	7	233	327	08	...	3.89	3.22	58	19.28	37.05	53.21	
27	Wai	12,436	...	...	54	80	...	...	4	...	4	405	543	...	...	4.34	6.43	32	32.67	43.66	36.63	
Ratnagiri District.																						
28	Vengurla	10,121	...	...	239	38	...	...	6	...	6	89	372	...	...	23.62	3.75	59	8.79	36.75	37.25	
29	Ratnagiri	14,274	...	...	127	66	...	...	3	1	4	63	260	...	...	8.9	4.62	28	4.41	18.21	21.22	
Belgaum District.																						
30	Belgaum	28,342	...	...	2,344	94	7	...	11	...	18	570	3,026	...	...	82.70	3.32	64	20.11	106.77	44.07	
31	Gokak	12,109	...	...	861	103	...	...	2	2	4	161	1,149	...	...	71.12	8.51	33	13.29	93.25	45.69	
32	Athni	10,419	...	6	39	67	2	1	2	...	5	179	296	...	58	3.74	6.43	48	17.19	28.42	88.21	
33	Belgaum Cantonment	19,733	...	...	663	17	...	...	...	...	...	265	945	...	...	61.77	1.59	...	24.68	88.05	34.10	
Dharwad District.																						
34	Dharwar	32,583	24	...	1,004	79	3	4	11	1	19	557	1,683	74	...	30.81	2.42	58	17.09	51.65	37.01	
35	Hubli	52,144	18	1	2,561	209	1	2	15	...	18	799	3,606	34	02	49.07	4.0	34	15.31	69.08	35.00	
36	Gad-g-Betgeri	2,821	342	...	172	128	2	1	...	...	5	581	1,228	1.36	...	7.22	5.37	21	24.39	1.55	34.13	
37	Ranebennur	13,756	31	33	68	37	1	1	2	1	5	238	412	2.5	2.40	4.94	2.69	36	17.31	29.95	28.66	
Bijapur District.																						
38	Bijapur	16,749	...	1	68	79	1	...	13	...	14	302	464	...	06	4.06	4.72	83	18.03	27.70	26.30	
39	Kanadgi	4,622	...	...	54	30	1	1	1	2	5	66	155	...	...	11.68	6.49	1.08	14.28	33.54	31.69	
Kánara District.																						
40	Karwar	14,515	1	...	86	14	...	1	7	...	8	133	242	...	07	5.92	96	55	9.16	16.67	19.15	
41	Kumta	10,713	...	...	101	9	...	1	3	...	4	121	235	...	...	9.43	84	37	11.30	21.94	21.47	
Surat District.																						
42	Surat	103,631	...	1	892	338	2	3	49	...	54	2,852	4,137	...	01	8.21	3.11	50	26.25	38.08	37.57	
43	Bulsar	14,711	...	...	421	19	...	...	5	1	6	253	699	...	...	23.61	1.29	41	17.20	47.51	38.61	
Broach District.																						
44	Broach	40,137	...	...	563	62	1	1	26	...	28	1,061	1,714	...	...	1.03	1.54	70	26.43	42.70	25.01	
45	Jambusar	12,070	...	...	208	13	...	...	2	...	2	179	362	...	...	17.23	1.08	17	14.84	33.31	36.47	
Kaira District.																						
46	Kaira	10,101	...	...	126	1	...	...	2	...	2	184	323	...	...	12.47	09	20	19.21	31.97	32.64	
47	Nadiad	29,044	...	...	563	8	1	1	9	...	11	698	1,250	...	...	1.39	2.7	39	22.99	46.04	46.70	
48	Borsad	13,159	...	...	92	12	...	...	4	...	4	266	474	...	...	7.57	98	33	30.10	38.98	43.74	
49	Kapadvanj	14,835	...	...	229	17	...	...	3	2	5	266	517	...	...	15.47	1.15	33	17.97	34.92	31.91	
Panch Mahals District.																						
50	Godhra	14,691	...	...	311	15	...	...	4	...	4	263	593	...	...	21.17	1.02	27	17.90	40.36	34.92	
51	Dohad	12,935	...	...	425	3	...	...	5	...	5	122	555	...	...	22.86	2.3	39	9.43	42.91	35.62	
Ahmedabad District.																						
52	Ahmedabad	144,192	1	...	2,417	217	3	5	44	4	56	3,380	6,071	01	...	16.76	1.50	39	23.44	42.10	43.40	
53	Gogha	6,637	...	1	138	9	1	...	3	1	5	45	193	...	15	2.04	1.36	75	6.75	29.08	33.96	
54	Viramgam	23,197	...	...	387	4	...	...	3	...	3	379	773	...	...	16.68	1.17	13	16.24	33.32	42.6	
55	Dhokla	16,494	...	...	317	30	...	2	2	1	5	315	687	...	...	19.2	1.82	30	19.10	40.44	35.71	
56	Ahmedabad Cantonment.	3,576	...	...	46	...	...	...	1	...	1	...	47	...	...	12.86	...	28	...	13.14	13.87	

N.B.—Districts A in this statement do not include the population or deaths of Towns B. In all the other statements "Districts" include Towns.

1	2	3	4	5								6			7			8	9						
No.	Districts.	Circles of Registration.	Villages and Towns.									Total.			Ratio of Deaths per 1,000 of Population.			Mean ratio per 1,000 of previous five years.	No.						
		Number in each District.	Number from which deaths from Cholera were reported.	Number in each District.	Number from which deaths from Cholera were reported.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Male.	Female.	Total.	Male.	Female.	Total.	Mean ratio per 1,000 of previous five years.	No.
	<i>Western Registration District.</i>																								
1	Khandesh ...	25	...	2,828	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	171	1
2	Nasik ...	16	...	1,647	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	191	2
3	Thana ...	11	3	1,626	3	1	2	1	...	...	...	1	2	...	...	...	...	3	4	7	0'01	0'01	0'01	133	2
4	City of Bombay ...	1	1	1	1	21	17	12	8	...	...	...	...	...	...	...	...	3	4	7	0'01	0'01	0'01	133	2
5	Kolaba ...	11	3	1,466	3	12	1	...	1	8	3	12	3	8	5	3	4	80	24	104	0'16	0'08	0'13	0'59	4
	<i>Central Registration District.</i>																	10	5	15	0'03	0'02	0'03	278	5
6	Ahmednagar ...	14	1	1,348	1	...	...	1	...	...	1	...	...	...	...	...	...	1	1	2	...	...	0'01	2'52	6
7	Poona ...	12	1	1,191	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	1	...	...	4'05	7	
8	Sholapur ...	10	2	716	2	...	...	...	...	...	2	...	...	...	...	...	...	1	...	1	...	...	2'86	8	
9	Satara ...	15	2	1,346	2	...	...	...	...	...	2	1	...	...	...	...	...	2	1	3	0'01	...	3'68	9	
10	Ratnagiri ...	10	...	1,310	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...	...	0'87	10	
	<i>Southern Registration District.</i>																								
11	Belgaum ...	11	5	1,076	19	...	1	...	...	...	15	18	3	2	9	37	18	54	43	97	0'11	0'09	0'09	243	11
12	Dh. rwar ...	17	16	1,303	234	79	...	152	483	450	681	601	697	497	306	68	24	2,181	1,873	4,054	4'10	3'58	3'86	1'94	12
13	Bijapur ...	10	2	1,112	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
14	Kanara ...	13	4	1,185	11	...	...	...	25	22	...	11	13	8	...	...	...	38	41	79	0'16	0'19	0'18	0'28	14
	<i>Gujarat Registration District.</i>																								
15	Surat ...	10	...	795	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1'88	15
16	Broach ...	8	...	403	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1'53	16
17	Kaira ...	11	...	579	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0'62	17
18	Pauch Mahals ...	7	...	654	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0'55	18
19	Ahmedabad ...	12	1	852	1	...	...	...																	

ANNUAL FORM NO. VIII.—DEATHS registered from SMALL-POX in the DISTRICTS of the BOMBAY PRESIDENCY during each month of the year 1893.

1	2	3		4		5												6			7		8			9		10
Number.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES AND TOWNS.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			NUMBER OF THESE DEATHS AMONG CHILDREN.		RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	Number.	
		Number in each district.	Number from which deaths from small-pox were reported.	Number in each district.	Number from which deaths from small-pox were reported.													Male.	Female.	Total.	Under 1 year.	Under 10 years.	Male.	Female.	Total.			
Western Registration District.																												
1	Khandesh	25	20	2,828	173	73	134	197	125	37	9	11	8	10	4	4	6	299	319	618	165	416	0.40	0.44	0.42	0.57	1	
2	Nasik	16	11	1,647	48	41	40	44	30	15	3	5	1	...	3	6	1	112	77	189	55	117	0.23	0.18	0.22	0.38	2	
3	Thana	11	7	1,629	26	4	3	12	14	3	3	4	1	1	5	9	4	36	27	63	14	41	0.08	0.07	0.07	0.23	3	
4	City of Bombay ...	1	1	1	1	2	4	16	8	7	3	1	4	3	2	1	4	30	25	55	6	13	0.06	0.08	0.07	0.43	4	
5	Kolaba	11	1	1,466	3	...	1	...	...	...	...	...	1	...	1	...	...	3	...	3	2	1	...	...	...	0.30	5	
Central Registration District.																												
6	Ahmednagar	14	12	1,348	66	22	47	35	15	7	4	3	...	3	...	...	4	52	88	140	45	85	0.06	0.20	0.16	0.11	6	
7	Poona	12	7	1,191	39	18	22	11	2	1	4	7	4	1	1	3	2	43	33	76	15	21	0.08	0.06	0.07	0.18	7	
8	Sholapur	10	9	716	38	24	37	42	19	9	10	6	2	1	6	1	...	81	76	157	114	40	0.21	0.21	0.21	0.14	8	
9	Satara	15	7	1,346	14	6	2	1	3	3	3	2	1	...	2	...	...	12	11	23	10	8	0.02	0.02	0.02	0.07	9	
10	Ratnagiri	10	...	1,310	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.15	10	
Southern Registration District.																												
11	Belgaum	11	4	1,076	12	5	10	7	4	...	4	4	...	1	...	2	1	20	18	38	6	17	0.04	0.04	0.04	0.13	11	
12	Dharwar	17	12	1,303	54	26	58	32	14	5	7	7	4	6	4	1	7	93	78	171	32	84	0.18	0.15	0.16	0.15	12	
13	Bijapur	10	8	1,112	44	21	11	5	19	4	6	5	4	4	2	4	14	50	49	99	10	48	0.13	0.12	0.12	0.05	13	
14	Kanara	13	6	1,185	22	5	8	13	12	14	8	7	5	14	5	9	7	61	46	107	10	33	0.26	0.22	0.24	0.14	14	
Gujarat Registration District.																												
15	Surat	10	1	795	1	...	1	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	...	0.23	15	
16	Broach	8	...	403	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.31	16	
17	Kaira	11	1	579	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	0.07	17	
18	Panch Mahals ...	7	1	654	1	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	1	...	...	...	...	0.21	18	
19	Ahmedabad	12	3	852	3	3	3	...	...	...	...	...	1	...	...	...	...	2	5	7	...	3	...	...	...	...	19	
Sind Registration District.																												
20	Karachi	15	6	792	7	1	2	4	4	...	...	...	...	...	1	...	2	13	1	14	...	3	0.04	0.04	0.02	0.17	20	
21	Hyderabad	13	1	1,251	3	3	...	...	...	...	...	...	...	...	...	...	...	2	1	3	...	2	...	...	...	0.10	21	
22	Thar and Parkar ...	9	4	309	13	9	20	16	11	4	1	...	...	...	...	...	...	32	29	61	20	16	0.17	0.19	0.18	0.29	22	
23	Shikarpur	17	...	1,106	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.12	23	
24	Upper Sind Frontier ...	5	1	295	3	...	...	...	...	1	2	1	3	...	...	...	...	4	3	7	...	...	0.04	0.04	0.04	0.13	24	
Total for the Presidency.		233	123	25,191	572	234	463	435	280	111	67	63	39	44	36	40	52	946	888	1,834	506	948	0.10	0.09	0.10	0.20		

ANNUAL FORM NO. IX.—DEATHS registered from FEVERS* in the DISTRICTS of the BOMBAY PRESIDENCY during each month of the year 1893.

1	2	3	4	5												6			7			8			
Number.	Districts.	CIRCLES OF REGISTRATION.		VILLAGES AND TOWNS.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	Number.
		Number in each district.	Number from which deaths from fevers were reported.	Number in each district.	Number from which deaths from fevers were reported.													Male.	Female.	Total.	Male.	Female.	Total.		
Western Registration District.																									
1	Khandesh ...	25	25	2,828	2,209	1,526	1,061	1,010	1,153	1,070	919	1,086	1,594	1,722	1,908	2,255	1,930	8,809	8,425	17,234	11,811	11,778	11,800	27,772	1
2	Nasik ...	16	16	1,647	1,382	1,160	847	875	728	570	625	700	1,022	1,124	1,061	1,395	1,441	6,018	5,533	11,551	13,083	13,477	13,737	27,177	2
3	Thana ...	11	11	1,626	1,512	1,460	1,160	1,226	1,062	891	804	1,115	1,723	1,238	1,162	1,448	1,848	8,149	7,088	15,237	19,018	18,111	18,611	20,777	3
4	City of Bombay ...	1	1	1	1	3,227	4,869	5,452	2,509	893	425	517	836	1,075	1,053	536	853	14,924	7,291	22,215	29,010	24,453	27,566	13,477	4
5	Kolaba ...	11	11	1,466	1,249	870	740	787	529	482	401	445	511	407	460	757	949	3,823	3,614	7,437	12,409	12,211	12,500	19,609	5
Central Registration District.																									
6	Ahmednagar ...	14	14	1,348	940	421	300	218	269	232	231	291	367	296	692	452	392	2,218	1,973	4,191	4,922	4,752	4,729	24,445	6
7	Poona ...	12	12	1,191	1,108	1,344	897	1,025	1,021	961	998	1,196	953	1,670	1,803	1,899	1,212	7,726	7,243	14,979	14,300	13,911	14,111	24,111	7
8	Sholapur ...	10	10	716	674	893	690	457	515	495	464	513	613	568	597	711	729	3,613	3,632	7,245	9,458	9,844	9,660	25,412	8
9	Satara ...	15	15	1,346	1,219	1,648	1,058	874	742	731	722	855	1,000	1,412	2,589	2,071	1,283	7,622	7,359	14,981	12,442	12,602	12,222	20,443	9
10	Ratnagiri ...	10	10	1,310	1,261	1,162	1,267	1,445	1,400	1,173	1,082	1,154	1,124	1,044	948	1,101	1,079	7,016	6,963	13,979	13,696	11,776	12,604	14,446	10
Southern Registration District.																									
11	Belgaum ...	11	11	1,076	648	645	427	353	282	275	409	1,018	1,985	3,114	5,595	3,468	1,550	10,222	8,899	19,121	20,603	17,776	18,900	15,908	11
12	Dharwar ...	17	17	1,303	1,194	1,312	927	970	845	984	1,021	1,123	2,594	5,873	8,440	8,788	5,397	19,800	18,874	38,674	37,523	36,009	36,811	20,888	12
13	Bijapur ...	10	10	1,112	985	709	502	520	510	515	538	509	620	558	808	870	799	3,993	3,561	7,554	10,003	8,995	9,949	17,779	13
14	Kanara ...	13	13	1,185	1,063	799	622	535	469	565	517	529	494	416	373	420	562	3,264	3,076	6,340	13,941	14,511	14,211	15,631	14
Gujarat Registration District.																									
15	Surat ...	10	10	795	697	1,309	1,230	1,196	646	510	468	809	861	715	689	888	1,022	5,215	5,158	10,463	19,311	15,711	16,001	20,141	15
16	Broach ...	8	8	403	385	658	537	601	567	524	443	552	875	967	1,360	1,299	1,205	4,856	4,732	9,588	27,762	28,422	28,008	31,621	16
17	Kaira ...	11	11	579	570	1,154	969	1,447	1,303	1,082	1,036	1,244	1,494	1,437	1,412	1,451	1,028	7,902	7,157	15,059	17,167	17,411	17,728	28,297	17
18	Panch Mahals ...	7	7	654	615	464	425	638	523	497	477	496	565	662	795	1,098	1,034	3,908	3,776	7,684	24,111	24,962	24,552	23,311	18
19	Ahmedabad ...	12	12	852	839	1,880	1,829	2,010	1,575	1,412	1,138	1,200	1,458	1,431	1,572	1,522	1,515	9,781	8,881	18,662	20,668	19,933	20,206	27,004	19
Sind Registration District.																									
20	Karachi ...	15	15	792	792	1,068	716	716	1,096	2,177	759	444	431	315	512	673	679	5,696	3,020	9,616	18,355	15,644	17,114	18,411	20
21	Hyderabad ...	13	13	1,251	1,251	1,064	839	740	662	507	469	416	466	472	595	749	802	4,373	3,468	7,841	9,100	8,455	8,800	13,905	21
22	Thar and Parkar ...	9	9	309	309	603	553	530	432	299	220	231	223	250	290	326	446	2,348	2,085	4,433	12,793	13,899	13,255	16,588	22
23	Shikarpur ...	17	17	1,106	1,106	2,357	1,524	1,399	1,075	1,013	844	881	692	938	1,599	1,841	1,528	8,367	7,434	15,801	16,995	17,647	17,247	20,777	23
24	Upper Sind Frontier ...	5	5	295	295	345	207	244	183	217	185	152	147	191	288	358	263	1,530	1,250	2,780	15,905	15,988	15,903	20,244	24
Total for the Presidency		293	293	25,191	23,300	28,108	24,226	25,264	20,242	18,075	15,200	17,626	23,158	27,985	36,640	36,415	29,576	161,213	141,302	302,515	16,566	15,566	16,007	21,712	

ANNUAL FORM NO X.—Deaths registered from DYSENTERY and DIARRHŒA in the DISTRICTS
of the BOMBAY PRESIDENCY during each month of the year 1898.

1	2	3	4	5												6			7			8	9		
Number.	District.	CIRCLES OF REGISTRATION.		VILLAGES AND TOWNS.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.			RATIO OF DEATHS PER 1,000 OF POPULATION.			Mean ratio per 1,000 for previous five years.	Number.
		Number in each District.	Number from which Deaths from Dysentery and Diarrhoea were reported.	Number in each District.	Number from which Deaths from Dysentery and Diarrhoea were reported.*													Male.	Female.	Total.	Male.	Female.	Total.		
Western Registration District.																									
1	Khandesh	25	25	2,823	1,508	682	501	651	769	636	461	526	840	925	810	745	1,089	4,765	3,889	8,594	6'30	5'44	5'90	387	1
2	Nasik	16	16	1,647	949	469	381	344	355	260	259	425	575	581	609	539	524	2,900	2,421	5,321	6'74	5'89	6'33	514	2
3	Thana	11	11	1,626	412	154	84	110	103	73	86	115	153	118	108	120	138	754	608	1,362	1'76	1'55	1'66	155	3
4	City of Bombay ...	1	1	1	1	376	359	473	313	176	161	221	323	362	316	168	267	2,056	1,464	3,520	4'05	4'00	4'37	285	4
5	Kolaba	11	11	1,466	576	176	133	155	136	111	103	152	236	159	119	109	151	979	761	1,740	3'27	2'57	2'93	309	5
Central Registration District.																									
6	Ahmednagar	14	14	1,348	925	421	310	276	387	329	219	333	442	349	573	318	222	2,294	1,885	4,179	5'24	4'32	4'71	398	6
7	Poona	12	12	1,191	663	324	293	326	291	189	180	263	588	322	369	383	566	2,125	1,979	4,104	3'93	3'80	3'87	411	7
8	Sholapur	10	10	716	628	507	370	298	342	276	273	334	529	529	548	477	422	2,622	2,293	4,905	6'88	6'19	6'54	476	8
9	Satara	15	15	1,346	878	552	344	336	341	316	347	456	727	614	770	674	650	3,109	3,128	6,327	5'21	5'11	5'16	367	9
10	Ratnagiri	10	10	1,310	956	518	347	322	311	318	287	229	302	265	240	225	277	2,005	1,636	3,641	3'90	2'76	3'29	268	10
Southern Registration District.																									
11	Belgaum	11	11	1,076	804	415	304	331	367	417	487	557	606	514	468	394	311	2,481	2,680	5,161	4'86	5'35	5'10	435	11
12	Dharwar	17	17	1,303	497	179	127	173	178	255	265	388	292	246	253	238	187	1,402	1,379	2,781	2'66	2'64	2'65	171	12
13	Bijapur	10	10	1,112	483	149	96	109	71	99	101	134	182	229	272	239	227	917	991	1,908	2'30	2'49	2'40	281	13
14	Kanara	13	13	1,185	211	92	65	46	34	35	50	66	70	76	49	40	48	392	288	680	1'67	1'36	1'52	188	14
Gujarat Registration District.																									
15	Surat	10	10	795	110	37	42	44	48	32	36	88	104	83	35	21	61	318	313	631	0'99	0'95	0'97	0'33	15
16	Broach	8	8	403	52	13	1	3	7	3	10	22	31	28	31	26	38	103	102	205	0'59	0'61	0'60	0'25	16
17	Kaira	11	11	579	27	9	18	11	6	8	17	11	22	21	20	4	...	90	57	147	0'19	0'14	0'16	0'25	17
18	Panch Mahals ...	7	5	654	7	...	...	1	...	2	3	1	6	4	2	2	5	17	9	26	0'10	0'06	0'08	0'06	18
19	Ahmedabad	12	9	852	42	24	29	28	23	31	17	41	61	49	31	26	31	228	163	391	0'48	0'36	0'43	0'40	19
Sind Registration District.																									
20	Karachi	15	9	792	26	35	42	29	37	19	19	22	89	42	34	30	32	265	165	430	0'85	0'66	0'77	0'40	20
21	Hyderabad	13	10	1,251	32	48	29	45	31	28	31	32	58	44	31	27	25	225	204	429	0'47	0'51	0'49	0'15	21
22	Thar and Parkar ...	9	5	306	20	6	6	2	1	1	2	2	...	1	...	2	1	17	7	24	0'09	0'06	0'07	0'09	22
23	Shikarpur	17	16	1,106	50	52	36	18	14	14	14	11	21	23	25	24	24	158	118	276	0'32	0'28	0'30	0'12	23
24	Upper Sind Frontier.	5	3	295	4	1	3	2	...	...	...	...	...	...	...	1	...	4	3	7	0'04	0'04	0'04	0'07	24
Total for the Presidency		283	282	25,191	9,861	5,179	3,920	4,133	4,165	3,628	3,430	4,419	6,271	5,794	5,733	4,831	5,296	30,256	26,533	56,789	3'11	2'92	3'02	1'30	

ANNUAL FORM NO. XI.—Statement showing the CHIEF SANITARY DEFECTS in the MUNICIPALITIES of the BOMBAY PRESIDENCY during the year 1898.

1	2	3	4	5	6	7
Number.	Collectorates.	Name of Municipality.	Population according to Census of 1891.	Death-rate per 1,000 of Population.	Chief Sanitary defects.	Remedial measures adopted.
1	Khándesh	1 Dhulia ...	21,871	30·04	There is no drainage of any kind, the sullage water soaks into the ground and causes nuisance.	A surface drainage scheme is under consideration.
		2 Songir ...	4,277	32·50	Underground and roadside drains are wanting in some parts of the town.	.....
		3 Nandurbár ...	7,670	44·98	Extension of surface drainage and water-works ...	Drains are being constructed as funds are available.
		4 Chopda ...	15,655	35·57	.....	.....
		5 Amalner ...	9,212	22·90	Underground and roadside drains are wanting in some parts of the town.	.....
		6 Parola ...	14,478	20·51	Defective water-supply.	.....
		7 Erandol ...	12,333	29·10	.....	.....
		8 Dharangaon ...	15,160	22·82	.....	.....
		9 Jalgaon ...	14,672	31·08	The drainage of the town of Jalgaon requires to be improved.	New U-shaped gutters are being built every year. Government have sanctioned this scheme for improving the water-supply at Jalgaon.
		10 Yáwal ...	10,800	24·72	.....	New gutters were constructed.
		11 Shirpur ...	10,142	21·50	Some side drains are still required ...	The construction of additional public latrines is under consideration.
		12 Bhúsáwal ...	13,169	21·94	The stone drains, which carry away the dirty water, have no proper outlet, the water runs into cuttings and dries up. The water-supply is from wells, but it is brackish.	.....
		13 Warangaon...	5,769	25·13	.....	.....
		14 Sawda ...	7,142	35·56	.....	The public roads and ways are cleaned daily.
		15 Faijpur ...	9,535	45·30	.....	.....
		16 Taloda ...	8,094	20·75	The drains in the north of the town require to be paved. The water in the wells is not of good quality; more drains are required.	Some of the drains in the town have been repaired.
		17 Sháháda ...	5,510	31·94	Public privies are wanting and better street conservancy.	.....
		18 Prakásha ...	3,684	29·58	.....	.....
		19 Bhadgaon ...	7,287	22·92	.....	.....
		20 Sindkhed ...	4,713	33·95	.....	.....
		21 Betáwad ...	3,372	43·89	More roadside drains are required ...	.....

1	2	3	4	5	6	7
Number.	Collectorates.	Name of Municipality.	Population according to Census of 1891.	Death-rate per 1,000 of Population.	Chief Sanitary defects.	Remedial measures adopted.
2	Násik ...	22 Násik 23 Trimbak 24 Yeola	24,406 4,084 18,861	33.14 71.01 33.46	No proper drainage, a good water-supply is needed.... No drainage. House refuse flows into cesspools and it is carted outside the town as far as practicable. The water-supply insufficient. The new water-works are not yet completed. More public latrines are required. The present ones are to windward of a frequented road and is very objectionable. The water-supply is insufficient during the hot months. A new water-work project is under consideration, but as it is estimated to cost more than a lách, is not likely in the exhausted state of Municipal finance to be undertaken for some years. At present the inhabitants get their water mainly from hydrants fed from the Railway reservoir, but the supply is strictly regulated by the Railway.	 The tanks and wells in the town were cleansed and repaired. Private cesspools are emptied daily by the Municipal sweepers.
3	Tlára ...	26 Sinnar 27 Málegaon 28 Thána 29 Kalyán 30 Bhiwudi 31 Máhim	10,012 15,633 17,455 12,608 14,387 7,684	31.66 45.80 51.10 31.73 131.86 27.59	No drainage. A few private drains have been built by house-owners, but there being no main drains to carry off the liquid refuse, this accumulates and stagnates in places. The Municipality have no night-soil cart. Drainage none No drainage beyond the roadside drain to carry away the rain and waste water. The supply of water is insufficient. The water-supply is scanty especially in the hot weather and is liable to be contaminated. Water-supply from the Varala tank is abundant, but the distribution is defective. No drainage. Good water-supply is wanted	Sweepers clean the streets and privies; during the hot season special hands were taken on to protect the public wells and river from being fouled. The town has been surveyed preliminary for the preparation of drainage and water-supply schemes. A drainage scheme and scheme for providing filter beds to the Pokharan Tank and increasing its catchment area have been prepared, but no action has been taken thereon for want of funds.

32 Bassein	...	11,291	48.45	Drainage scheme wanted	...	.....
33 Bándra	...	18,759	46.06	Drainage scheme wanted. The cesspools are not regularly cleansed.	...	A drainage scheme is under consideration.
34 Kurla	...	11,469	61.81	There is no drainage beyond a few drains for storm and sullage water. Water-supply is deficient and unfit for drinking.	...	The Mills, public and private latrines are cleaned daily and night-soil taken to Bombay Municipal pits at Chembur. Cesspools are cleaned every third day. Vchar water is supplied free of charge from dipping wells and taps at convenient stations to the public.
4 Bombay	...	866,144	64.03	Incompletion of system of drainage, high level of sub-soil water.	...	A system of drainage being carried on, and extensive works in progress. A system of sub-soil drainage under completion.
5 Kolába	...	5,886	33.29	Open drains are needed. Additional supply of good potable water required.	...	The Municipality is not at present in a position to remedy the defects for want of funds.
37 Pen	...	7,466	21.83	No drainage; roadside gutters carry off the cistern and stand-pipe surplus water and also foul water from private houses. The town is built on a slope and has a natural drainage. There is a leak in the Shet Keshev Mitiram tank which decreases the water-supply.	...	The leakage of water has been partially stopped by an earthen dam and the saved water is utilized.
38 Panvel	...	10,417	39.83	A drainage scheme is urgently required to prevent water-logging of the town. The quantity of water that daily runs to waste from the distribution centres of the new water-works is enormous. Six additional stand-pipes are urgently wanted with the estimated number of fire hydrants. An iron night-soil cart and some public latrines are required.	.....	An extra sweeper was employed and the drains were cleaned now and then by employing temporary sweepers.
39 Uran	...	11,425	27.30	A drainage scheme is needed. Water-supply requires to be improved by means of conduit pipes from Dongri (a hill to the south of the town) to the Bhimala tank. Privies no better on the whole than elsewhere.	...	The Bhimala tank was cleaned.
40 Roha-Ashtami.	...	5,549	15.68	There is no drainage beyond open roadside drains. The water-supply arrangements are still defective. The main pipe and the distributaries are almost choked up with silt. There are no dust-bins. More public latrines are wanted.	.....	
41 Mahád	...	6,869	17.91	No drainage; better arrangements for draining off waste water are wanted. Drinking water is obtained from tanks and wells, but the supply is insufficient during the hot season. There are public latrines as well as private privies, but the staff of Bhangis is inadequate.	...	No special measures were taken during the year, as the Municipality had to spend a large amount on account of plague expenses.

1	2	3	4	5	6	7
Number.	Collectorates.	Name of Municipality.	Population according to Census of 1891.	Death-rate per 1,000 of Population.	Chief Sanitary defects.	Remedial measures adopted.
6	Ahmednagar ...	42 Ahmednagar.	36,031	26.47	Improvement of water-supply required. Drainage and conservancy.	Improvement made in distribution of water-supply. Instead of country-made earthenware pipes to convey water from one of the aqueducts (the Wadgaon), a new line of iron 8" and 9" pipes has been laid to the town north wall and iron pipes therefrom of smaller dimensions have been laid down for distribution.
7	Poona ...	43 Bhingar ...	5,490	12.10	Drainage and conservancy ...	.....
		44 Sangamner .	9,733	35.96	Water-supply liable to pollution	.....
		45 Vambori ...	5,159	30.23	Water-supply and conservancy	.....
		46 Poona City .	1,18,657	27.22	Want of drainage. Water-supply should be from one source and distributed by means of stand-pipes. Irrigation and leakage from canal.	Strict supervision has been kept over the reserved portion of the Pravara river from which water is taken for drinking purposes.
		47 Saswad ...	5,684	29.38	Need of good water-supply, drainage and surface cleanliness.	A new well is under construction, the completion of which will improve water-supply.
		48 Jejuri ...	3,479	20.68	Do. do. do.	Since the commencement of the plague cesspools have been constructed and emptied and cleanliness has been more carefully attended to.
		49 Barámati ...	5,410	27.46	Need of a better water-supply and system of conservancy.	Sweepers and Bhangis entertained to keep the place clean.
		50 Indápur ...	5,241	14.86	Do. do. do.	None.
		51 Sirur ...	5,574	16.14	Do. do. do.	Do.
		52 Khed ...	3,947	57.00	Water-supply liable to pollution. Better conservancy required.	Wells constructed and repaired.
		53 Lonávli ...	3,582	34.89	Need of better conservancy and water-supply. Building regulations required.	One masonry drain constructed.
		54 Talegaon - Dabbade.	4,476	24.34	Drainage and conservancy ...	.....
		55 Alandi ...	2,143	11.85	Water-supply liable to pollution	.....
		56 Junnar ...	11,905	26.70	Water-supply deficient in hot months. Drainage and conservancy.	.....
		57 Poona Subbarban.	7,910	24.02	Drainage required	.....

1	2	3	4	5	6	7
Number	Collectorates.	Name of Municipality.	Population according to Census of 1891.	Death-rate per 1,000 of Population.	Chief Sanitary defects.	Remedial measures adopted.
12	Dhárwár ...	86 Dhárwár ... 87 Hubli ... 88 Gadag-Bettigeri.	32,583 52,194 23,821	51.65 69.09 51.55	Most of the roadside drains are of masonry ... The town has a natural drainage. In some parts masonry drains have been built, but their construction being faulty, refuse water accumulates therein. There is a great deal of soakage. The drinking water requires filtration. There are about 2,000 pit privies; these are seldom cleaned. No drainage. The water supply is liable to contamination by percolation of sullage water. (1) Storing refuse in compounds. (2) Existence of pit privies and sinks. (3) Want of Bhangri privies.	Special care is taken to clean periodically the deep, closed and open gutters. A drainage scheme is under contemplation. The closing of pit privies has to be considered, but what is to be substituted has been not yet resolved upon. (1) Refuse stored in backyards and compounds removed and not allowed to be stored for a long time. (2) Extra conservancy staff engaged and roads, lanes, surroundings, drains and latrines were fairly swept and kept clean.
89	Navalgund ...	89 Navalgund ...	8,989	72.92	No drainage. The water-supply is from a tank, but the quality is not good.	Silt in the tank was removed during the year at a cost of Rs. 313-9-5.
90	Yemnur ...	90 Yemnur ...	984	151.42	Do. Storage of house-sweepings in backyards of houses.	This is a temporary Municipality. A large fair is held annually. The fair was prohibited during the year owing to the prevalence of plague elsewhere.
91	Nargund ...	91 Nargund ...	5,878	67.19	No drainage. Water-supply insufficient. More public latrines required. Storage of rubbish in backyards should be prohibited.	Steps to the Padavagoud tank were constructed and some petty repairs were done to the tanks.
92	Ránebenur ...	92 Ránebenur ...	13,756	29.95	No drainage beyond roadside drains to carry away storm-water. The storage of refuse in backyards prohibited.	Eighteen dust bins have been constructed and more will be provided as funds permit. No other works could be undertaken for want of funds.
93	Gudgudapur (Temporary.)	93 Gudgudapur (Temporary.)	707	62.23	No drainage. Water-supply insufficient.	.....
94	Byadgi ...	94 Byadgi ...	4,808	30.37	No drainage. Water-supply insufficient. Want of privies and latrines.	.....
95	Háveri ...	95 Háveri ...	6,758	41.58	No drainage beyond roadside cuttings. The public drinking water tank is the principle source of water-supply. The silt from the tank should be	The work of increasing the storage capacity of drinking cisterns is in progress. (a) Steps are being taken annually to remedy this defect as far as the funds admit. During the year under report the municipality spent Rs. 35

13	Bijápur	...	96	Bijápur	...	16,749	27-70	Some masonry drains are still wanted in the new Bazár. Water-supply insufficient during the hot season. Drains are urgently needed in most of the streets and lanes of the town.	removed. A fence round the tank is necessary to prevent pollution of water by the cattle entering the tank from the north side where it is open to the fields. There are no public latrines here nor scavenging in force.	in constructing two new slab-drains and Rs. 598 in improving the town roads and gutters. (b) The following sums were spent during the year:— Improvements to drinking water tanks and wells Rs. 15. Improvements to Mahár's well Rs. 73-7. Pay of hoid watchmen Rs. 60. Building and repairing dust-bins Rs. 55. Destruction of prickly-pears Rs. 199.
14	Kánara	...	97	Bágalkot	...	18,034	25-39	No drainage. Water-supply is sufficient More drains are needed in Dani and Hatgar Pethas. Insufficient water-supply.	Nine dust-bins have been constructed at a cost of Rs. 56-12-3; owing to the want of fund no important sanitary works were undertaken.	
			98	Ilkal	...	11,216	43-51	Water-supply fairly good	Owners of buildings were required to remove all rank vegetation and rubbish from their compounds.	
			99	Guledgud	...	15,481	22-41	No drainage. There are no public latrines or urinals.	The night-soil is thrown into a pit situated far from the town.	
			100	Kárvár	...	14,515	16-67	The drinking water-supply is chiefly obtained from tanks and wells. The water of the former is somewhat impure and polluted. Two new wells for drinking purposes are required. There are no public latrines. Places within 150 yards from human dwellings are prohibited for natural purposes.	The construction of a drain about 300 feet long for the dirty water of the Police line was undertaken during the year.	
			101	Kumta	...	10,713	21-94	Natural drainage fairly good. Water-supply good.	Rs. 411 were spent on construction of new drains, Rs. 71 on current repairs to existing drains, Rs. 129 on ordinary repairs to wells and tanks.	
			102	Sirsi	...	6,644	32-06	There is no regular drainage. Water-supply fairly good.	The Municipality is a temporary one.	
			103	Haliyal	...	6,180	34-63	No drainage. The drainage is defective so far as removal of sullage water from private houses is concerned.	.....	
			104	Gokarn	...	4,342	49-52	Masonry open drains throughout the town are required. More public latrines and urinals are required.	.....	
			105	Ulvi	...	10,611	75	Railings to wells situated on road sides are required to be made.	.....	
			106	Bhatkal	...	5,940	25-42	No drainage	.....	
			107	Honavar	...	6,207	26-42	The drainage is defective so far as removal of sullage water from private houses is concerned.	.....	
15	Surat	...	108	Surat	...	108,631	38-08	Masonry open drains throughout the town are required. More public latrines and urinals are required.	The question of removing sullage water is under consideration.	
			109	Bulsár	...	14,714	47-51	Railings to wells situated on road sides are required to be made.	.....	
			110	Mándvi	...	3,965	36-07	No drainage	.....	
			111	Ránder	...	10,921	41-94	No drainage	.....	

1	2	3	4	5	6	7
Number.	Collectorates.	Name of Municipality.	Population according to Census of 1891.	Death-rate per 1,000 of population.	Chief Sanitary defects.	Remedial measures adopted.
16	Broach ...	112 Broach ... 113 Jambusar ... 114 Amode ... 115 Ankleshwar ...	40,137 12,070 5,006 10,692	42.70 33.31 36.15 67.25	There is no drainage, but the natural situation of the city is good. No drainage. Water-supply is abundant at all seasons, but of an inferior quality, the water being polluted by soakage from a large number of well-privies which exist in the town. There are about thousand pit privies which are cleaned at long intervals. The arrangement is very unsatisfactory. All pit privies should be closed ... A drain to carry off the sullage water is necessary, as there are no cesspools in the town.	 The surface drains are being gradually carried out, but there is a legal difficulty preventing the Municipality from enforcing the conversion of well, privies into surface ones.
17	Kaira ...	116 Hānsote ... 117 Kaira ...	4,436 10,101	21.19 31.97	The existing drainage for carrying away the rain-water of Nadiād into the river Shedhi should be lowered by two feet and a circular drain round the town should be constructed and connected with this drain to carry off the periodical accumulation of water round the town. Sullage water drains are wanted, cesspools and pit privies ought to be closed. Additional public latrines are wanted. The step-well should be converted into a well without steps. A few more urinals and dust-bins and one or two additional latrines are wanted.	The municipality is a small one and there is not much scope for more activity, as its income is limited. The scheme for a proper drainage of the town is under consideration. A scheme for a water-work has been held in abeyance for want of funds. Rs. 452 were paid to Public Works Department for making survey and project for a circular drain. Rs. 634 spent in purchasing a site for building latrines. The night-soil depôt has been removed to the new site purchased last year.
		118 Nadiād ... 119 Borsad ... 120 Kapadvanj ...	29,044 12,159 14,805	43.04 38.98 34.92	No important work has been done on account of the expenses incurred to keep off the plague.	

18	Panch Maháls ...	121 Mehemdabad 122 Mahudha ... 123 Anand ... 124 Ode... 125 Umreth ... 126 Dákore ...	7,842 9,436 9,214 8,082 15,638 9,487	40-93 33-91 46-88 44-29 42-14 42-80	There are small masonry drains in principal places to carry away storm water of the town, but they are defective and it is under contemplation to construct proper drains with water-supply scheme which is postponed for want of funds at present.	14 urinals and 50 dust-bins were put up in the town which are cleansed daily. Measures were taken to keep ovárás of the Gomti Tank clean and in good order. Steps are being taken to set apart places for public latrines. The tank is cleaned every year and arrangements are under consideration for water-works in the town. .....	..... ..... ..... .....
19	Ahmedabad ...	127 Godhra .. 128 Dohad ... 129 Kálol ... 130 Ahmedabad . 131 Gogha ... 132 Virangam ... 133 Dholka ... 134 Dhandhuka . 135 Dholera ... 136 Ránpur ...	14,691 12,935 4,096 1,44,192 6,637 23,197 16,494 9,576 10,088 5,838	40-36 42-91 39-06 42-10 29-08 33-32 40-44 29-55 25-97 29-80	Drainage is needed in some parts of the town. Well water is used for drinking and all other purposes. The want of a good tank is very much felt. The present site is stated by Public Works Department to be porous. Except Khadia Zilla in which drainage system has extended, the rest of the city requires drainage. Improvement of the gradients of the circuitous channel round the city wall, widening of the Hebatpur channel, which drains off the water coming from the north-eastern corner of the Tank, and diversion of the water from above the railway line towards the west of the town are necessary. A good water-supply for which trial is to be made next hot season at Reybaivav, is needed. A regular drainage is necessary throughout the town. Want of a drainage channel to drain off rain water which accumulates in the west of the town. Water-supply from wells is abundant, but its quality is indifferent. Only partial drainage is in existence ... During the hot season, the water becomes brackish and insufficient.	(1) Water-works completed. (2) Experimental drainage scheme completed and 4,994 houses connected with the drainage system. (3) Experimental sewage farm. Improvements of the channels are in progress. The public wells have been cleaned and repaired. Steps are being taken to carry out the Malár tank and the western drainage channel works. The space allotted for the removal of town sweepings has been removed further off. Ten wooden urinals were put up during the year.	55

1	2	3	4	5	6	7
No.	Collectorates.	Name of Municipality	Population according to Census of 1891.	Death-rate per 1,000 of Population	Chief Sanitary defects.	Remedial measures adopted.
20	Karáchi ...	137 Sánand ... 138 Mándal ... 139 Prántij ... 140 Modássa ... 141 Karáchi ...	7,784 8,030 8,776 6,965 97,009	30.32 32.63 25.18 34.75 60.33	Latrines for males and females on the east and south-east of the town are needed. Drainage. Excavation of the village tank, which is used for bathing and washing purposes, and construction of public latrines, are needed. The whole city is not drained. Shone's drainage system is introduced into the native town and part of the Lyari quarter. The Halálkhor service has been extended to the whole city. The great difficulty is from the presence of a large number of underground covered cesspools.	Two new wells and two new latrines will be erected shortly. Other defects shall be remedied as funds are available. House connections with the Municipal drains. New bridges were provided in the Queen's Road quarter with flood gates to stop the tide water coming in. Preedy Tank was partly filled in. Extension of Holálkhor service into the whole city. Extension of latrine and urinal accommodation. Iron latrines and urinals have been erected at various places. New engines have been set up at the Fort Lift for supplying the water to the town and cantonment. New engines of improved type have been ordered for the River Lift. The underground project of constructing sewers prepared by Messrs. Shone and Ault is still under the consideration of the Municipality.
21	Hyderabad ...	142 Hyderabad ...	54,512	27.59	Drainage: There is no artificial drainage system, nor is any needed, owing to the town being situated on a sand-hill. <i>Water-supply.</i> The water-supply, though abundant, is rendered impure by the subsoil communication of the dirty water of the Lanha tank.	.....
22	Thar and Pákar .	143 Umarkot ...	3,698	45.70		

23	Shikárpur	...	144	Shikárpur ...	41,991	37-70	<i>Drainage.</i> The storm water of the town is conducted by the paved streets to three outfall reservoirs on the eastern side of the town. A large number of wells have yet to be connected to the outfall surface drain. Also the disposal of the water, which accumulates in the outfall reservoir, is very necessary. <i>Water-supply.</i> The present plan of lifting water at the public wells by means of Common Persian wheels is defective, in that the woodworks soon get coated with gums, and the parapets found them to not afford sufficient protection from pollution from the throwing in of grain, &c., in performing the religious ceremonies known as "Akba." (a) Drainage requires improving (b) Water-supply: Nil.	<i>Drainage.</i> Storm-water:—In the city this is being satisfactorily effected by paving the streets and lanes, with burnt bricks, laid on edge on a bed of concrete in the form of an inverted arch with a suitable gradient in length so as to lead the water outside the city, culminating in one of three outfall reservoirs. The waste water from wells has been disposed of satisfactorily by means of shallow surface semicircular drains. <i>Water-supply.</i> The improved wells at Bakarshah and the Dispensary have been worked throughout the year and are appreciated by the people.	
24	Jacobabad	...	{	Súkkur	28,935	25-82	(c) Urinals and a proper system of house conservancy wanted. <i>Drainage.</i> The drains running through certain streets of the town were cleaned and repaired and pukka bridges built over them during the year. <i>Water-supply.</i> The wells were cleaned; special clearance of Jacob's tank near the Clock Tower which had not been cleared for years was also carried out. Domestic cleansing and conservancy. Some defects are generally observable in native towns. Cattle, &c., are kept in dwelling-houses; with all that, cleanliness was observed as far as possible.	(a) Drainage project under consideration. (b) The town has been receiving a supply of good drinking water since August 1895 when the water-works were completed and brought into operation. (c) Will be taken in hand after the drainage scheme is completed. Street paving is progressing.	
				145	Lárhána ...	12,010	33-88		
				146	Jacobabad ...	8,258	40-08		The tank was cleaned at a cost of Rs. 1,162 during the year, and steps were taken to clean the town thoroughly.